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## THE

## CORNER CUPB0ARD.

## OUR MOTTO.

"Could we with ink the ocean fill, And were the heavens of parchment made, Were every stalk on earth a quill, And every man a scribe by trade; To write the love of God alone, Would drain the ocean dry; Nor could the scroll contain the whole, Though stretch'd from sky to sky."

1. CHRISTMAS.-Christmas is the festival of the Christian churches, in commemoration of our Saviour's nativity, on the 25 th of December. It is celebrated in the various churches by special services; and it

the holly. ( $I$ Aquifolium). (See 6). is a frequent custom to decorate sacred edifices with branches of the holly, the mistletoe, the cedar, and the pine.

No. 1.
2. Christmas takes its name from Christ, and mass, the high mass of the Catholic churches, by which the advent of the Sa viour was celebrated.
3. The origin of Christmas may be thus briefly explained. The Greeks and the Romans held a festival in honour of Saturn

the mistletoe. (Viscum Album). (See 7). which commenced annually about the middle of December. These festivals were called Saturnalia, and during the days of festivity slaves were reputed masters; they were at liberty to say what they pleased;
and it is said that they sat at table, and were waited upon even by their own masters. These festivities were of a very riotous nature. When Christianity dawned upon the world, its disciples sought to do away with heathen customs and their debasing extravagancies, and they therefore instituted the festival of the nativity of Christ.
4. The origin of Christmas, in our own country, differs somewhat from the account already given of its origin in Rome. Here the ancient Druids held three grand festivals annually, commemorative of the respective idols, Thor, Frea, and Odin. Of these, the former, which represented the sun, and called the Prince of the Power of the Air, was celebrated with the most magnificence. It was to commemorate the creation, and was kept at the winter solstice ; for that being the longest night in the year, they assigned to it the formation of the world from primeval darkness, and called it Mother Night. The festival itself was denominated Iuel or Yeol, whence our Yule, and was a season of universal enjoyment. When Christianity was introduced, in accordance with the system of indulgences permitted by Gregory I., this festival was transferred to the Nativity of Jesus; and the Yule feast accordingly, in the course of time, received the more suitable name of Christmas.
[The history of Christmas would of itself form a pleasing volume. We have given the few preceding particulars, because the mind is more easily impressed with knowledge when it is excited by any circumstances that can reuder that knowledge interesting. Everyone who erijoys the festivity of Christmas should know whys, at this season, we so universally give ourselves to merry-making.]
5. Christmas in the olden time was observed in a manner widely different from the present. The difference arose chiefly from the constitution of society, which in early days presented a wide contrast from the present time. Each parish had an officer, who was designated "The Lord of Misrule," and whose duty it was to direct the Christmas fêtes, and the festival of Christmas was celebrated with plays, masques, grand spectacles, games, dances, and romps. Instead of masters waiting upon their servants, they mixed with them, gave them hearty fare, and for a time forgot the distinctions of rank.
6. THE HOLLY.-The holly is a beartiful and well-known evergreen, of the genus Ilex, which includes several species. Its name is supposed to be a modification of holy, as early writers speak of it as a holy plant or tree. It probably derived this appellation from having been used to adorn holy places, and from the fact that its red berries are in perfection about the time of the festival of Christmas. The wood of the holly is the hardest of all white wood, and it is much used for purposes of inlaying, \&c. In Germany the holly is termed Ciristdorn; in Denmark, Christthorn; in Sweden, Christtorn; and it has other names in various countries, all signifying that it is a plant adopted as a holy emblem.
7. THE MISTLETOE.-The mistletoe is a parasitic plant, growing on trees, and its history is peculiarly interesting. From its habit of growing upon trees, it was formerly thought to be a vegetable excrescence, but it has been ascertained to be propagated by the white seeds or berries, which are conveyed by the missel thrush from the mistle. toe to other trees. It is supposed that the viscous juice of the berry adheres to the beak of the bird, and that in striking his beak against the bark of trees to free himself from the berry, he propagates the plant; for if the berry sticks to a smooth part of the bark it will take root, and sprout out the next winter. Among the Druids the mistletoe was held as a sacred plant, because they reverenced the number three, and the leaves and berries are found frequently in clusters of three. It also grows upon the Oak, and this being a tree sacred to the Druids, doubtless gave them another cause of veneration for the mistletoe. At the end of each year the Druids marched in solemn procession to gather the mistletoe from the sides of a stately oak; they then presented the mistletoe to Jupiter, invoking the blessing of that deity, and inviting all mankind to assist them, exclaiming: "The new year is at hand; gather the mistletoe!"
8. THE MISTLETOE AS A KISSING BUSH.-That oracle of all out-of-the-way information, Notes and Queries, has searched in vain for a satisfactory account of Why the mistletoe came to be adopted as a kissing bush? But Mr. Alfred Crowquill has given a fanciful interpretation of the circumstance in the following lines:-
"The winter came, poor Cupid fled, His wings were wet and dripping; His bed of roses withered quite, 'Twas so severe and nipping. He never slipped so oft before, Though never sure his footing; His fingers were quite blue with cold, 'Twas useless trying shooting.
"So to Ma Venus off he sped, Complaining sadly to her
That victims were so scarce on earthThey never had been fewer.
He told his tale, all drowned in tears Which froze as they were dropping, And on his cold and marble cheek Like pearls of price were stopping.
" Fair Venus seized the precious gift, And quickly so disposed them,
She into one small fairy branch Of 'Mistletoe composed them.
'Let this for ever be,' cried she, ' The talisman of misses; And you'll find victims fast enough, For your great trap is kisses." "
[The music is published by Jullien, Regentstreet.]
9. THE YULE LOG.-Yule being the ancient name of the Christmas festival, the large log burnt on the Christmas fire obtained the name of the Yule log.
10. THE WASSAIL BOWL.-This was a large drinking vessel, in which our Saxon forefathers drank health to each other in their public entertainments, exclaiming, "Wæs hæl," or "Health be to you !" It was a Saxon custom to go about during Epiphany (11) singing a carol, drinking the health of the inhabitants, and collecting alms to replenish the bowl. Hence arose the present system of carol singing, Christmas waits, Christmas boxes, Christmas ale, \&c. \&c.
11. EPIPHANY (AND TWELFTH NIGHT) is a Christian festival held on the twelfth day after Christmas, January the Sixth, in honour of the greeting of our Saviour by the wise men. It is a custom in families to divide plum cakes on the evening of this day, which is called Twelfth Night, and to draw lots for imaginary characters, which are to be sustained throughout the evening.
12. MODERN CHRISTMAS. - The Christmas of the present time is marked by very different features to those which distinguished the festivals of bygone times. Bacchanalian revelry and grotesque fêtes have given way to religious services, family gatherings, friendly parties, convivial games, Christmas waits, and pantomimes at the
public theatres. The press lends its aid to render the season interesting. The Illustrated News comes out with a double number, filled with appropriate illustrations. If Charles Dickens gives us no Christmas story in the book form, he speaks to us in Household Words. And every newspaper and magazine throughout the kingdom will be found to have its Christmas story, or its Christmas lore, and the "Poets' Corners" will give ample evidence of the reigning influence of "Father Christmas." It is regarded, and very wisely, as a season of mutual forgiveness, and of renewed hope ; and the most practical suggestion for good which we can offer under this head is, that we should "forgive our enemies" before another year may dawn upon us, and examine ourselves strictly upon the point, and pray to Almighty God for his help and guidance in the future. Having done this, we may participate with joy in the innocent festivities of the season, as a help to which we give some Games, Enigmas, Charades, and Conundrums (14).
13. THE ETIQUETTE OF CHRISTMAS PARTIES.-Etiquette is less rigid at Christmas than at any other season of the year. Christmas parties, being intended for the ré-union of relations and intimate friends, it would be a gross mistake to uphold those rigid laws of fashion which govern other entertainments. The good things provided by the host and hostess should be more homely than upon other occasions; and there should be a marked heartiness in their demeanour towards those whom they entertain. Those who assemble may be more free in their intercourse than upon ordinary occasions, the good wishes of the season being upon every tongue. Dress should be less displayed now, than at the fashionable parties that will commence about the middle of January. At a Christmas party everybody should cheerfully join in the most simple pastimes. Old Age and Youth should shake hands and unite in the general mirth. A Christmas should be an era in everybody's history, and it should be our especial pleasure to contribute by each word and act to the happiness of those around us.
14. CHRISTMAS GAMES.-It is a very difficult thing to describe in print the various games known as "Christmas," or
"Parlour Games." And further, their variety and number is so great that they would fill a moderate volume. We intend, therefore, at present to give half-a-dozen games that we consider most appropriate to Christmas, and which will be sufficient to afford a merry evening wherever they may be adopted. And having given these, we shall enumerate about a dozen more, the rules for which we shall publish at a future time. We have frequently found at Christmas that these games are forgotten. Some one is asked to start a game, but nobody complies, because they have all forgotten their old amusements-"it was so long ago," \&c.-but no soorer has the name of one familiar game been started than memory comes to their aid, and soon the cheerful circle is alive with laughter.
15. Twirl the Trencher (Forfeit Game).-A wooden platter, or a plate, is brought in, and given to a person who is to be the leader. The leader then takes a name himself, and gives a name to each of the company. Numbers will do, or the Chris. tian, or familiar names by which they are usually known, or the names of animals or fiowers may be adopted. Each person must be sharp enough to remember his or her name directly it is mentioned. Each person has a chair, and a large circle (the larger the better) is formed around the plate. The leader then gives the plate a spin, and calls out the name of the person who is to catch it. Leader then runs to his seat, leaving the plate spinning, and when the person named fails to catch the plate before it has done spinning, he or she must pay a forfeit, which must be held until all the players have forfeited. (See 22).
[This game excites a great deal of merriment, and should beplayed in a spirited manner. The plate should be fairly spun, and the names distinctly but quickly called out. A little stratagem should be employed by looking towards one person, and thencalling out the name of another quite unexpectedly. Nobody should demur to pay a forfeit if fairly fined, and each person should remember his own forfeits.]
16. The Knight of the Whistle. -This, though a very simple game, is one of the most amusing we have ever seen. The person who is to be made a Knight of the Whistle, must not haveseen the game before. He should be asked if he has ever been made a Knight of the Whistle? If he answers
"No!" his consent must be asked, and he must then be told to kneel down to receive the knighthood. Some one must then sit down, and the knight kneeling rests his head in the lap of the person who is sitting, and all the persons gather round and pat gently on his back, while they repeat these words:-

## Here we unite

With fond delight,
The Rose, the Shamrock, and the Thistle, And with due state We now create-
The one who kneels Knight of the Whistle !" $A$ whistle and a piece of string, some 12 to 14 inches long, should have been previously prepared, and while the person has been kneeling down, it should be fastened to his back, by the button on his coat, or by the aid of a pin. This done, he should be told to listen to the sound of the whistle, that he may know it again. Some one should then sound the whistle, and when the knight has confessed that he should know the sound again, he is told to stand up, and the company form a circle all around him. Then the fun consists of some one behind his back catching the whistle (without pulling at the string), and sounding itdropping the whistle the instant it has sounded. The knight (having been previously told that he is to catch the whistle) will jump round and probably seize hold of the hands of the person who sounded it, but at the same momert he will unconsciously have conveyed the whistle to those on the opposite side. And thus, the more anxious the knight gets, the more he embarrasses himself, because, at every turn, he conveys the whistle to some one behind him. This creates very good laughter.
[Care should be taken not to have the string
too long, or when the knight turns the whistle too long, or when the knight turns, the whistle cover the trick front of him, and he will discover the trick. A very small toy whistle, and one that is easily sounded, will be the best. But a small key will do, where no better can be had. Those who form the ring, should occasionally pretend to be passing the whistle from hand to hand. This game cannot be played more than once of an evening, unless a visitor may happen to enter, who has not seen it. Ladies, as well as gentlemen, may be mado
knights.]
17. Catch the Ring.-A good game to follow the preceding one, is catch the ring, as the company will have the opportunity of sitting down. The chairs are placed in a circle, just so far apart, that each per.
son sitting can easily reach the hand of another person on either side of him. One person stands in the middle of the circle. A piece of string with a wedding, or a larger ring of brass, upon it, is then tied, of a sufficient length to reach all round the circle, so that each person may eatch hold of it. The players are then to slide the ring along the string, passing it from one to the other, and the game is, for the person who stands in the centre to try to catch the ring. When he catches it, the person with whom he finds it is to go into the centre.
[Forfeits may be added to this game, if preferred, each person caught with the ring paying :orfeit.]
18. Blind Man's Buff.-This is a lively game, very well known, and one that will do very well to follow "Catch the Ring," during which the company sat down. One of the company is blindfolded, and must then endeavour to catch another of the company, who is then to be blindfolded, and so on in turn. It is usual to induct the blind-folded person by some such process as the following. He is led into the centre of the room, and some one addressing him, while the company stand up round him, says :-
"How many horses has your father got?"
He answers "Three !",
" What colour are they?",
He replies "Black, White, and Grey!"
"Then turn about and catch whom you may !" The fun then begins, and everybody must look out for himself. When any one is caught, all the company keep immediate silence, and the blindfolded person is to call out the name of his prisoner. If he makes a mistake, the prisoner must be liberated, and the sport recommenced.
[This is a capital game, if played with moderation, and in a right spirit. There should be no unpleasant tricks played upon the blindmau, and everybody should take a share in the risk of being caught.]
19. The Dutch Concert.-This game will do to follow the preceding one, as all the parties again sit down. Each person makes a selection of an instrument-say one takes a flute, another a drum, a third the trombone, a fourth the piano, and each person must imitate in the best way he can the sound of the instrument, and the motions of the player. The leader of the band, commencing with his instrument, all
the others follow, tuning some popular air, such as "Pop goes the Weasel," " Bobbing around," "In the Days when we went Gipseying," or any other air. The fun consists in this, that the leader may take any instrument from either of the players, who must watch the leader, and take the instrument which he was previously playing. If he fails to do so, he pays forfeit. Or if he makes a mistake, and takes the wrong instrument, he pays forfeit. Suppose A to be the leader, playing the violin, and B to be one of the band, playing the trombone. Directly A ceases to play the violin and imitates the trombone, B must cease the trombone, and imitate the violin, and immediately A returns to the violin, B must take the trombone, or whatever other instrument A was playing the moment before he took the violin. If he makes a mistake he pays forfeit.
[This is a very laughable, though rather noisy game. It should not be continued too long. A good leader will soon be able to impose forfeits upon all the players].
20. The Harmless Duel (Anew Game). -This will afford a great deal of amusement. A circle is formed, and all sit down but one person, who holds in his hand a cup with soap suds, and a tobacco pipe, or a large quill. He then calls one of the company, and tells him to go and pull somebody's nose-of course he does so making as much fun as possible the while. The person whose nose is pulled gets up and challenges his antagonist to a duel. Then they stand face to face, and the cup-holder blows a large bubble between their two faces, and then the one who succeeds in blowing the bubble into the face, or anywhere on the head of the other, is considered the victor. This will excite screams of laughter. Threeor four bubbles between each pair of combatants is considered sufficient to satisfy the highest sense of honour, and the cup-holder either challenges some one himself, or names another combatant to commit another insult. This may be made a forfeit game, by each person who is vanquished paying forfeit.
[The pipe and suds should be obtained the morning before the party. To make good suds, some soap should be cut into shavings, and put to dissolve in a little hot water, and allowed to stand for some hours, so as to produce good elastic bubbles that will not easily break.]
21. Six other Games.-The following
games will probably be remembered upon the mere mention of their names. "Hunt the Slipper." "How do you Like it? Where do you Like it? and When do you Like it?", "The Gig," otherwise called "The Traveller" (in which a tale is told, and whenever allusion is made to the assumed name of any one of the players, all the company rise up and turn round, or shift to each other's seats). "The Menagerie," "Shadow Buff", and "The Blind Pointer."
[These are all capital games, and the rules of them maybe found by referring to our Index.]
22. TWENTY GOOD FORFEITS. Here are some good forfeits to be used in connection with the following games :-
I. I'm Blow'd.-Blow a bubble, and catch it on the tip of your nose.-See 20 .
II. The Teetotaller.-The owner of the forfeit is to be blindfolded, and to be fed with water from a spoon until she guesses who is feeding her.
III. Collins's Ode.-Give illustration of the passions, by holding a candle or lamp in your hand, and at the bidding of the forfeit-holder, make your face express, in the following order-smiles, tears, laughter, hatred, love, terror.
IV. Goody Two-shoes.-You arerequested to take two chairs, and then place them back to back. Then take off your shoes and jump over them.
[You will naturally suppose that you are to jump over the cHa IRs, but it is only you are
that you shall jump over the sHows! that you shall jump over the sHoes !]

## v. The Industrious Apprentice going to <br> Service.-

[This is performed in the following way. The owner of the forfeit is asked what situation he will take. Perhaps he will say a carpenter. Then ask him how he will plane, and saw, and chissel, and hammer, \&c., and he must go through all the motions, or he will not be en-
titled to receive the forfeit. Any trade may be titled to receive the forfeit.
imitated in the same way.]
vr. The Boquet.-Choose Three Flowers. [After having chosen them, you are to go outside the door. Then those who are in the room are to decide upon which three persons shall represent the three flowers you have chosen. Thus, suppose you have chosen the sweet Wil. liam, the lily, and the jasmine, the company will decide that William Thomas shall be your sweet
William, Hannah Smith your lily, and Mary William, Hannah Smith your lily, and Mary
Briggs your jasmine. Then when your return Briggs your jasmine. Then when you return some one will ask you aloud, "what will yourn do
with your sweet William," and ycu, not know-
ing what they have agreed to, might say, "Put it in water until it dies." "What will you do with your lily ?" -" Put it in my hair when I go to a ball!", "What will you do with your jasmine ?" - "Place it between the leaves of a book until it is quite dry." Then the interpreter will tell you aloud that you must put William Thomas into water until he dies; that you must wear Hannah Smith in your liair at a ball, and that you must put Mary Briggs between the leaves of a book until she is quite dry. This, although mere nonsense, will excite roars of
viI. The Adept.-Laugh, then whistle; cry, then whistle; cough, then whistle.
viII. The Naturalist.-Imitate six ani-mals-the dog, the duck, the cuckoo, the crow, the donkey, and the unicorn!
[The last is intended as a puzzler.]
IX. The Aspiring Orator.-Speak a brief sentence, sounding the $H$ where it should not be sounded, and omitting it where it should be sounded.
[You can escape in this way:-"I Hobject to 'ave Hanything to do Hin such a manner. 'Ow would you like it? Did you ever 'Ear of such a Hidea ?"]
x. The Quiet Lodger.-The person who owns the forfeit may be called upon to choose one or two musical instruments. Having done so, he may be requested to imitate them.
XI. Stoops to Conquer.-Crawl around the room on all fours forwards, your forfeit shall then be laid upon the floor, and you must crawl backwards to it, without seeing where it is placed.
xir. The Likeness.-A lady may be called upon to put on a gentleman's hat, and give an imitation of the gentleman, or a gentleman may put on a lady's bonnet, \&c.
xiII. Hit or Miss.-You are to be blindfolded, and turned around two or three times. Then you are to walk towards one of the company, and the handkerchief is to be taken off, that you may see the person you have touched. Then you are to kiss that person, and each alternate one all around the room.
[This forfeit, if strictly enforced, will frequently excite roars of laughter.]
xIr. The Happy Couple. - Two forfeits may be redeemed by two persons at once. They may be requested to whistle a duet, to dance a pas de deux, or to see which can sing Rule Britannia (or any other air, with words) the most rapidly.
xv. The Egotist.-Propose your own realth in a complimentary speech, and sing he musical honours.
xvi. Dot and Carry One.-Hold one mele in one hand, and walk round the room.
[This is suited only to gentlemen.]
XVII. Sing one line of four different songs vithout pausing between them.
[It would be well to find four lines that fford humcur taken consecutively, such as
"All round my hat,"
"We saw the Frenchman lay;"
"Let us speak of a man as we find him,"
"Down where the aspens quiver!"]
xviII. "Hobson's Choice."-Burn a ork one end, and keep it clean the other. Iou are then to be blind-folded, and the ork is to be held horizontally to you. rou are then to be asked three times which and you will have? If you say "right," hen that end of the cork must be passed long your forehead ; the cork must then se turned several times, and whichever and you say must next be passed down rour nose; and the third time across your heeks, or chin. You are then to be llowed to see the success of your choice.
[This will afford capital fun, and should be olayed fairly, to give the person who owns the orfeit a chance of escape. The end of the cork hould be thoroughly well burnt. As a joke or Christmas time, this is perfectly allowable; und the damp corner of a towel or handkerhief will set all right. It should be allotted to a gentleman, and one who has a good broad ind bare face.]
xIx. Poetic Numbers.-Repeat a passage of poetry, counting the words aloud as your proceed, thus:-
[Full (one) many (two) a (three) flower (four) s (five) born (six) to (seven) fade (eight) unseen (nine) and (ten) waste (eleven) its (twelve) sweetness (thirteen) on (fourteen) the (fifteen) lesert (sixteen) air (seventeen)! This will prove a great Puzzle to many, and afford considerable amusement.
xx. Hush-a-bye Baby.-Yawn until you make several others in the room yawn.
[This can be done well by one person who can imitate yawning well, and it will afford indescribable mirth. It should be allotted to one of the male sex, with a large mouth and a sombre or heavy appearance, if such a one can be found in the party.]

These forfeits, it will be seen, have each a separate name and number. Now a good plan would be for a person who is to take an active part in the evening party to read them over during the day, and to be-
come acquainted with them. Then, in allotting the forfeits, when they are called thus :-

[^1]The person awarding the forfeits may call out "No. 1," "No. 10," "No. 15," or any other number; or may say (which would be more amusing), "Hush a bye laby !" "Hobson's Choice!" "Dot and Carry One!? \&c. The Corner Cupboard may be laid on the table to afford further explanation of the forfeits, or be held in the hand of the person who is holding up the forfeits while they are being cried, and this person can at once explain what is to be done. In this way the redemption of the forfeits will go on freely, without stoppage or hesitation, and a capital evening's amusement be derived.
23. TWENTY CONUNDRUMS, each of which is warranted to excite a laugh!
I. When was beef tea first manufactured upon a large scale in England?
II. When does a man devour a musical instrument?
III. Why is a pig's tail like a carving knife?
iv. Why are crows the most sensible birds?
v. What is the difference between the sun and bread?
VI. What kind of wine is both meat and drink ?
vII. Why should a man, when he's eating salt-fish on Good Friday, take no egg-sauce with it?
vIII, Why is a soldier like a vine?
Ix. Why is hot bread like a caterpillar ?
$x$. Why is a short negro like a white man?
xI. Which has most legs, a horse or no horse?
xII. Why is a thief in a garret like an honest man?
XIII. Why is a man searching for the philosopher's stone like Neptune?
xiv. Why is a fender like Westminster Abbey?
xv. Where did Charles the First's executioner lunch, and what did he take?
xvI. Why did the accession of Victoria to the throne throw a greater damp over England than the death of King William?
xVII. Why should a gouty man make his will?
xVIII. Why are bankrupts more to be pitied than idiots?
xix. When may a gentleman's estates be said to consist of feathers?
xx . Why is a sailor like a member of Parliament? (See 29.)
24. PUZZLE.-A Piece of Worldiy Wispom.-Young 16, 7, 13, I advise you to $20,12,15,5,27,11$, to your $27,20,29$, 7, 4. 30 , with $29,19,24,27,6,7,13,8,27$ -to 16, 17, 19, 7 , the $16,10,15,5$ of your $5,12,16,27$-to $25,12,30,27$, with the $20,17,6,9$-to $19,17,5$, and $29,25,12$, 11,18 , with $16,21,29,27,25,17,5,26,10$, 22 -to aim at $23,6,27,17,5$ things, but not to despise $20,26,5,5,20,19$ ones, because $20,12,24,27$ itself, is $16,17,29,7$ up of $16,3,16,19,28,5,1$-to $15,7,5,5,20$, 27 , your bills $21,24,5,19,28$, and never to $24,3,6,14,27,5$, this proverb which consists of thirty letters. (See 30.)

## 25. PUZZLE. - Orthographical

 Enigma.-A Lesson for Young Ladies. - Let your $19,23,12,24,2,11,31$, be 15 , $17,14,30,1,21-1,23,9,4-1,35,22,2$ and free from $32,7,13,9,29$-your conversation $31,21,24,31,28,16,1,29$, and without $32,2,9,23,14,30,34,4$-your 3 , $17,19,32,2,11-19,29,2,22-32,8,30$, $13,29,12,3$ and $5,16,1,33,15,28,24$, 15. Let not your $9,34,2,31,31$ be 15,18 , $6,9,4$, but $12,2,8,3$ and $31,6,13,36,17$, 9 to your 11, $8,14,22$. Be 22, 35, 24, 9 to your $2,26,6,18,1,31-15,29,12,3,1$, 17 to those $6,14,25,21,11$, you, and 5 , $16,33,9,28,2,12,30$ to your $32,18,7$, $20,14,36,31$. Thus you will obtain the $17,31,3,20,29,19$ of your companions, and the $8,32,32,7,10,16,18,36,13,5$, 24 of the wise. A sentence containing 36 letters. (See 31.)
## 26.

CHARADE.
My FIRST is never out, you may rely;
My sEcond at a ball we oft espy;
My THIRD will do as well to solve charade, As when some great experiment is made; My whole at Waterloo and Cressy's field
Was seen, and helped to make the foemen yield.-(See 32.)

## 27. CHARADE.

Ye Lovers, beware of my pirst,
If you'd 'scape matrimonial jars,

But if by misfortune you're cursed, With such source of connubial warsTo cure this inveterate ill, Of remedies divers I'd tell,
Did not Shakespeare prescribe with great skill,
And where could you learn them so well! Should his means no contentment beget, Nor patience, nor time bring relief, Oh! do not my sECOND, as yet, To yourself, with your hopes or your griefWho knows, if you live, and are kind, (Though of course 'tis a terrible blow), But Fate has my sEcond behind, In store for the source of your woe. But Husbands! whate'er be your dole If my sECOND you'll alter in meaning, It may be youll visit my whole ; With envy, or sympathy beaming. But hush!' such injurious thoughts And its false, - a misnomer besides; Though implied, do not whisper that ought, Of my FIRST, in my whole e'er resides. Oh! come then, ye Spouses that raise, Or are vexed by domestic unrest; Unlearn your disconsolate ways, Example will teach you the best. Fair whole! how thy beauty I'd raise, Were it needful to do thee such wrong; But thy learning, thy fare, and thy praise, Have been themes for far loftier song.
[We have found this charade in an old scrapbook, but have been unable to alight upon the answer to it. As it will interest lovers, husbands, and wives, we offer it to their rivalry, to see whether a lover, a husband, or a wife, will be the first to supply the answer.]
28.

## ENIGMA.

Oh! source of all our joys, and all our woe,
Type of Creation, in its mingled flow
Of good and evil; how may we receive,
Thine all-productive name! should we not grieve
That thou wert ever made so frail. so fair;
For all the ills to which our flesh is heir,
From thee arise-from thee our loss of wealth,
Poison to life, to happiness, to health,
From thee our ruined hopes, from thee the earth,
Mourns its sad blight, its pestilence, and dearth.
Change we the picture-and in thee behold
Oh wondrous mystery ! blessings yet untold,
From theo-we gain onr loss, for pain our ease,
And the great med'cine for our sore disease
And the great med'cine for our sore disease.
Hope springs exulting in the troubled breast,
That still through thee, our sorrows shall find rest.
Life's charmers, too, who now onr cares beguile,
Now vex us with a frown, or with a smile,
Present thy image, whether dark or fair,
Reflect thy weakness, as thy grace they share.
Still 'tis of thee, they brighten every scene,
Nay, without thee, who knows if they had
been : been;
And, at that hour, when daylight dies away
And the sun setting, sheds a mellower ray;
Or when the stars in heaven's deep azure gleam,

And dew-drops glisten in the moon's pale
beam; tale,
Or wander slowly through the accustomed vale;
We may not see thee there, yet still thy name, Springs to our lips, another, yet the same. (See 33).

## 29. ANSWERS TO THE TWENTY CONUNDRUMS.

I. When Henry the Eighth dissolved the Pope's bull.
II. When he has a pianoforte. (Piano for tea.)
III. Because it is flourished over a ham!
iv. Because they never complain without caws.
v. The sun rises in the east, but bread rises with the yeast in it.
vi. Old port, with a crust.
vir. Because his appetite would get egg-sauce-ted! (Exhausted.)
viII. Because he is 'listed, trained, has ten-drills, and shoots.
IX. Because it's the grub that makes the butter-fly.
x. Because he's not a tall black.
XI. A horse has four legs-no horse has five legs.
xII. Because he is above, doing a wrong action.
xIII. Because he's a sea king (seeking) what never was.
xiv. Because it contains the ashes of the great.
xv. He took a chop at the King's Head.
xvI. The King was missed (mist), while the Queen was raining (reigning).
xviI. That he may have his leg at ease (legatees).
xvIII. Bankrupts are broken, while idiots are only cracked.
xix. When they are all entails. (Hentails.)
$x x$. Because he ensures his return by canvas.

## 30. ANSWER TO A PIECE OF WORLDLY WISDOM.

 Sbort Reckoning s Make
$\begin{array}{cccccccccc}20 & 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 \\ \mathrm{~L} & \mathrm{o} & \mathrm{n} & \mathrm{g} & \mathbf{F} & \mathbf{r} & \mathrm{i} & \mathrm{e} & \mathrm{n} & \mathrm{d} \\ \mathbf{s}\end{array}$

## 31. ANSWER TO THE ORTHOGRA. PHICAL ENIGMA.

Let your ador n i n g b e $\begin{array}{llllllllllll}123 & 45 & 67 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16\end{array} 17$


## 32. ANSWER TO THE CHARADE.-In-fan-try.

## 33. ANSWER TO THE ENIGMA.-

Eve.
34. CHRISTMAS TREES.-The custom of having illuminated trees at Christmas, their branches laden with pretty little trifles as mementoes to be presented to the guests of the Christmas party, and to be cherished by them as remembrancers of a byegone Christmas, until another year comes round, is derived from Germany. It is a very poetical fancy, and is gaining ground in this country. A young fir is generally selected for the Christmas tree, and for a week before Christmas the daughters and sons of the family are busy engaged in inventing and bringing together all sorts of curious things to hang upon its branches. There are little presents of all kinds, crochet purses, bonbons, preserved fruits, alum baskets, charms, dolls, toys in endless variety, \&c., distributed over the tree according to fancy ; and the whole is illuminated by a hundred little wax tapers which are lighted just before the guests are admitted to inspect the tree. This custom, which is still new to us, dates as far back as Luther's time, and is worthy of all continuance. The following account of a Christmas tree is from Dickens's Household Words, 1850 :-
"I have been looking on, this evening, at a merry company of children assembled round that pretty German toy, a Chrstmas Tree. The tree was planted in the middle of a great round table, and towered high above their heads. It was brilliantly lighted by a multitude of little tapers; and everywhere sparkled and glittered with bright objects. There were rosy-cheeked dolls, hiding behind the green leaves; there were real watches (with moveable hands.atleast,and an endlesscapacity of being wound up) dangling from innumerable twigs; there were French-polished tables,
chairs, bedsteads, wardrobes, a eight-day clock, and various other articles of domestic furniture (wonderfully made, in tin, at Wolverhampton), perched among the boughs, as if in preparation for some fairy housekeeping; there were jolly, broad-faced little men, much more aggreable in appearance than many real men-and no wonder, for their heads took off, and showed them to be full of sugar-plums; there were fiddles and drums; there were tambourines, books, work-boxes, paint-boxes, sweetmeatboxes, peep-show boxes, all kinds of boxes; there were trinkets for the elder girls, far brighter than any grown-up gold and jewels; there were baskets and pincushions in all devices; there were guns, swords, and banners ; there were witches standing in enchanting rings of
pasteboard, to tell fortunes : there were pasteboard, to tell fortunes; there were teetotums, humming-tops, needle-cases, penwipers, smelling-bottles, conversation-cards, bouquet-holders; real fruit, made artificially dazzlng with gold leaf; imitation apples, pears, and walnuts, crammed with surprises; in short, as a pretty child before me delightedly whispered to another pretty child, her bosom friend, "There was everything and more." This motley collection of odd objects, clustering on the tree like magic fruit, and flashing back the bright looks directed towards it from every side - some of the diamond-eyes admiring it were hardly on a level with the table, and a few
were languishing in timid wonder on the bosoms were languishing in timid wonder on the bosoms
of pretty mothers, auntsand nurses-madea lively of pretty mothers, auntsand nurses-madealively set me thinking how all the trees that grow and all the things that come into existence on the earth have their wild adoruments at that wellremembered time."

Before the tapers are burnt out, the guests all assemble around the tree, and the souvenirs are taken off and presented to the guests whose names have either been previously appended to them, or at the discretion of the distributor. The tree is then set aside, and the Christmas games begin (14).
35. CHRISTMAS PUDDINGS. - At Christmas time good housewives vie with each other in the production of puddings. We, therefore, offer for their assistance a selection of the very best receipts that can be obtained:-
36. Ingoldsby Christmas Pudding. -(Miss Acton's. Receipt.) -Mix very thoroughly one pound of finely-grated bread with the same quantity of flour, two pounds of raisins stoned, two of currants, two of suet minced small, one of sugar, half a pound of candied peel, one nutmeg, half an ounce of mixed spice, and the grated rinds of two lemons; mix the whole with sixteen eggs well beaten and strained, and add four glasses of brandy. These proportions will
make three puddings of good size, each of which should be boiled six hours.

Bread-crumbs, 1 lb .; flour, 1 lb .; suet, 2 lbs.; currants, 2 lbs.; raisins, 2 lbs.; sugar, 1 lb . ; candied peel, $\frac{1}{2} \mathrm{lb} . ;$ rinds of lemons, 2 ; nutmegs, 1 ; mixed spice, $\frac{1}{2}$ oz.: salt, $\frac{1}{4}$ teaspoonful; eggs, 16 ; brandy, 4 glassesful : 6 hours.

Obs.-A fourth part of the ingredients given above, will make a pudding of sufficient size for a small party : to render this very rich, half the flour and bread-crumbs may be omitted, and a few spoonfulls of apricot marmalade well blended with the remainder of the mixture. Rather less liquid will be required to moisten the pudding when this is done, and four hours and a quarter will boil it.
37. Miss Acton's Own Christmas Pud. divg.- To three ounces of flour, and the same weight of fine, lightly-grated breadcrumbs, add six of beef kidney-suet, chopped small, six of raisins weighed after they are stoned, six of well-cleaned currants, four ounces of minced apples, five of sugar, two of candied orange-rind, half a teaspoonful ot nutmeg mixed with pounded mace, a very little salt, a small glass of brandy, and three whole eggs. Mix and beat these ingredients well together, tie them tightly in a thickly-floured cloth, and boil them for three hours and a half. We can recommend this as a remarkably light small rich pudding : it may be served with German, wine, or punch sauce.

Flour, 3 oz. ; breal-crumbs, 3 oz. ; suet, stoned raisins, and currants, each, 6 oz .; minced apples, 4 oz .; sugar, 5 oz .; candied peel, $2 \mathrm{oz}$. ; spice, $\frac{1}{2}$ teaspoonful ; salt, a few grains ; brandy, small wine-glassful; eggs, 3 : $3 \frac{1}{2}$ hours.
38. Mrs. Rundie's Plum Pudding. -Rich Plum Pudding.-Stone carefully 1 lb . of the best raisins, wash and pick 1 lb . of currants, chop very small 1 lb . of fresh beef suet, blanch and chop small or pound 2 oz. of sweet almonds and 1 oz . of bitter ones ; mix the whole well together, with 1 lb . of sifted flour, and the same weight of crumb of bread soaked in milk, then squeezed dry and stirred with a spoon until reduced to a mash, before it is mixed with the flour. Cut in small pieces 2 oz . each of preserved citron, orange, and lemon peel, and add
$\frac{1}{4} \mathrm{oz}$. of mixed spice; $\frac{1}{4} \mathrm{lb}$. of moist sugar should be put into a basin, with 8 eggs and well beaten together with a three-pronged fork; stir this with the pudding, and make it of a proper consistence with milk. Remember that it must not be made too thin, or the fruit will sink to the bottom, but be made to the consistence of good thick batter. Two wine-glassfuls of brandy should be poured over the fruit and spice, mixed togetherin a basin, and allowed to stand three or four hours before the pudding is made, stirring them occasionally. It must be tied in a cloth, and will take five hours of constant boiling. When done, turn it out on a dish, sift loaf-sugar over the top, and serve it with wine-sauce in a boat, and some poured round the pudding.

The pudding will be of considerable size, but half the quantity of materials, used in the same proportion, will be equally good.

In addition to the wine-sauce, have a metal sauce-boat filled with brandy; set it alight on the table, and pour a portion of it in a flame upon each slice of pudding. It will be found a great improvement.
39. THE BEST MODE OF CLEANS. SING CURRANTS.-The best method of cleansing currants is to put them into a common colander, over a pan with sufficient water to cover them, rub them well between the hands in the water to separate the knobs, and stir them about. The small sand and gravel will then fall through the holes and sink to the bottom of the pan. After being washed clean, and the water drained from them, the large stones can then be easily picked out by sorting them over on a large dish.-Family Herald.
40. Currants, previous to putting them into the pudding, should be plumped. This is done by pouring some boiling water upon them :-wash them well, and then lay them on a sieve or cloth before the fire,-pick them clean from the stones;-this not only makes them look better, but cleanses them from all dirt.-Dr Kitchener.
41. Washing Pudding Cloths, \&c. -Pudding-cloths should be washed as soon as possible after the puddings are taken out of them. They should be washed in clean warm water, without soap, rinsed and thoroughly dried before being folded and put in the kitchen drawer, otherwise they will give a musty smell to the puddings that
are next boiled in them. The paste-brush, egg-whisk, and sieves, must also be washed, first in cold and then in warm water, and put away olean and dry, or they will spoil whatever you use them for afterwards. All things through which eggs are strained, should be washed, first in cold and then in hot water.
42. HOW AN OLD LADY SECURED GOOD PUDDINGS.-An old gentlewoman, who lived almost entirely on puddings, told us it was a long time before she could get them made uniformly good-till she made the following rule-"If the pudding was good, she let the cook have the remainder of it-if it was not she gave it to her lap-dog;" but as soon as this resolution was known, poor little Bow-Wow seldom got the sweet treat after.-Dr . Kitchener.
43. MEDITATION ON A PUDDING. -Let us seriously reflect what a pudding is composed of. It is composed of flour, that once waved in the golden grain, and drank the dews of the morning; of milk pressed from the swelling udder by the gentle hand of the beautiful milk-maid whose beauty and innocence might have rc commended a worse draught; who while she stroked the ulder, indulged in no ambitious thoughts of wandering in palaces, formed no plans for the destruction of her fellow-creatures-milk that is drawn from the cow, that useful animal, that eats the grass of the field, and supplies us with that which made the greatest part of the food of mankind in the age which the poets have agreed to call golden. It is made with an egg, that miracle of nature, which the theoretical Burnet has compared to Creation. An egg contains water within its beautiful smooth surface; and an unformed mass, by the incubation of the parent, becomes a regular animal, furnished with bones and sinews, and covered with feathers.

Let us consider-Can there be more wanting to complete the Meditation on a Pudding? If more be wanting more can be found-lt contains salt, which keeps the sea from putrefaction-salt, which is made with the image of intellectual excellence, contributes to the formation of a pudding. Boswell's Journal of a Tour to the Hebrides: with Dr. Johnson. 8vo. 1785, p. 440.
44. HUMOROUS THOUGHTS UPON PUDDINGS.-The head of man is like a pudding; and whence have all rhymes, poems, plots, and inventions sprung-but from that same pudding? What is poetry but a pudding of words.
The physicians, though they cry out so much against cooks and cookery, yet are but cooks themselves; with this difference onlythe cook's puddings lengthen life-the physician's shorten it; so that we live and die by pudding-for what is a clyster but a bag pudd-ing-a pill but a dumpling-or a bolus but a tanzy, though not altogether so toothsome. In a word, physic is ouly a puddingising, or cookery of drugs:-the law is but a cookery of Quibbles.
The universe itself is but a pudding of ele-ments,-empires, kingdoms, states, and republics, are but puddings of people differently mixed up.
The celestial and terrestrial orbs are deciphered to us by a pair of globes, or Mathematical puddings.
The success of war, and the fate of monarchies, are entirely dependent on puddings and dump-lings,- for what else are cannon-balls but military puddings, or bullets but dumplings-only with this difference, they do not sit so well on the stomach as a good marrow pudding or bread pudding. In short, there is nothing valuable in nature but what more or less has an allusion to pudding or dumpling.

Some swallow every thing whole and unmixed, so that it may rather be called a heap than a pudding. Others are so squeamish, that the greatest mastership in cookery is required to make the pudding palatable:- the suet, which others gape and swallow by gobs, must for these puny stomachs be minced to atoms, the plumbs must be picked with the utmost care, and every ingredient proportioned to the greatest nicety, or it will never $\xi_{0}$ down.-From a learned Dissertation on dumplings, 8vo. 1726, p. 20.
45. DR. KITCHENER'S PLUM PUD. DING SAUCE.-One glass of sherry, half a glass of brandy, two tea-spoonfuls of pounded lump sugar (some like to add a little finely grated lemon peel) in a quarter of a pint of thick melted butter.
46. ANOTHER PLUM PUDDING SAUCE.-To four ounces of melted butter, or of thick arrowroot, add one ounce and a half of sherry, the same of brandy, and the same of curacoa (the latter may be omitted) ; sweeten to palate, and add a little grated lemon peel and nutmeg.
47. TEETOTAL PUDDING SAUCE is made with melted butter, to which a little cream has been added, sweetened to taste, and flavoured with any of the favourite spices.
48. CHRISTMAS CAKES.-Currant Cake.--Two pounds of flour, into which
rub half a pound of butter, half a pound of moist sugar (more or less according to taste), carraway seeds to taste, four table-spoonfuls of yeast, and a pint of milk lukewarm, beat up with three eggs and half a pound of currants. To clean currants, see 39 . Colour the cake with a slight infusion of saffron, if approved.
49. Fine Almond Cake.-(Miss Ac. ton's Receipt.)-Blanch, dry, and pound to the finest possible paste, eight ounces of fresh Jordan almonds, and one ounce of bitter ; moisten them with a few drops of cold water or white of egg, to prevent their oiling ; then mix with them very gradually twelve fresh eggs which have been whisked until they are exceedingly light; throw in by degrees one pound of fine, dry, sifted sugar, and keep the mixture light by constant beating, with a large wooden spoon, as the separate ingredients are added. Mix in by degrees three-quarters of a pound of dried and sifted flour of the best quality; then pour gently from the sediment a pound of butter which has been just melted, but not allowed to become hot, and beat it very gradually, but very thoroughly, into the cake, letting one portion entirely disappear before another is thrown in; add the rasped or finely grated rinds of two sound fresh lemons, fill a thickly-buttered mould rather more than half full with the mixture, and bake the cake from an hour and a half to two hours in a well heated oven. Lay paper over the top when it is sufficiently coloured, and guard carefully against its being burned.

Jordan almonds, $\frac{1}{2} \mathrm{lb}$.; bitter almonds, 1 oz ; eggs, 12 ; sugar, 1 lb . ; flour, $\frac{3}{4} \mathrm{lb}$.; butter, 1 lb . ; rinds lemons, $2: 1 \frac{1}{2}$ to 2 hours.

Obs. -Three quarters of a pound of almonds may be mixed with this cake when so large a portion of them is liked, but an additional ounce or two of sugar, and one egg or more, will then be required.
50. A Good Pound Cake. - (Mrs. Rundle's Receipt.)-Beat 1lb. of butter to a cream, and mix with it the whites and yokes of eight eggs beaten apart. Have ready, warm by the fire, 1 ll . of flour, and the same of sifted sugar ; mix them and a few cloves, a little nutmeg and cinnamon, in fine powder together; then by degrees work the dry ingredients with the butter and eggs. When well beaten, add a glass of wine and some carrorrays. It must be beaten a full
hour. Butter a pan, and bake it an hour in a quick oven. The above proportions, leaving out 4 oz . of the butter and the same of sugar, make a less luscious cake, and to most tastes a more pleasant one.
51. Gingerbread.-Whisk four strained or well-cleared eggs to the lightest possible froth (French eggs, if really sweet, will answer for the purpose), and pour to them, by degrees, a pound and a quarter of treacle, still beating them lightly. Add, in the same manner, six ounces of pale brown sugar free from lumps, one pound of sifted flour, and six ounces of good butter, just sufficiently warmed to be liquid, and no more,-for if hot, it would render the cake heavy ; it should be poured in small portions to the mixture, which should be well beaten up with the back of a wooden spoon as each portion is thrown in; the success of the cake depends almost entirely on this part of the process. When properly mingled with the mass, the butter will not be perceptible on the surface; and if the cake be kept light by constant whisking, large bubbles will appear in it to the last. When it is so far ready, add to it one ounce of Jamaica ginger and a large teaspoonful of cloves in fine powder, with the lightly grated rinds of two fresh fullsized lemons. Butter thickly, in every part, a shallow square tin pan, and bake the gingerbread slowly for nearly or quite an hour in a gentle oven. Let it cool a little before it is turned out, and set it on its edge until cold, supporting it, if needful, against a large jar or bowl.
52. Sponge-cake.-Beat some eggs as light as possible. Eggs for sponge or almond-cakes require more beating than for any other purpose. Beat the sugar, by degrees, into the eggs. Beat very hard, and continue to beat some time after the sugar is all in. No sort of sugar but loaf will make light sponge cake. Stir in, gradually, the spice and essence of lemon; then, by degrees, put in the flour-a little at a time-stirring round the mixture very slowly with a knife. If the flour is stirred in too hard, the cake will be tough. It must be done lightly and gently, so that the top of the mixture will be covered with bubbles. As soon as the flour is all in, begin to bake it, as setting will injure it. Put it in small tins, well buttered, or in one
large tin pan. The thinner the pans, the better for sponge-cake. Fill the small tins about half full. Grate loaf-sugar over the top of of each, before you set them in the oven. Sponge-cake requires a very quick oven, particularly at the bottom. It should be baked as fast as possible, or it will be tough and heavy, however light it may have been before it went into the oven. It is, of all cakes, the most liable to be spoiled in baking. When taken out of the tins, the cakes should be spread on a sieve to cool. If baked in one large cake, it should be iced. A large cake, of twelve eggs, should be baked at least an hour in a quick oven.
53. For small Cakes, ten minutes is generally sufficient. If they get very much out of shape in baking, it is a sign that the oven is too slow.
54. Tea Cake.-Rub into a quart of dried flour of the finest kind, a quarter of a pound of butter; then beat up two eggs with two teaspoonfuls of sifted sugar, and two tablespoonfuls of washed brewer's, or unwashed distiller's yeast ; pour this liquid mixture into the centre of the flour, and add a pint of warm milk as you mix it; beat it up with the hand until it comes off without sticking; set it to rise before the fire, having covered it with a cloth; after it has remained there an hour, make it up into good-sized cakes an inch thick; set them in tin plates to rise before the fire during ten minutes, then bake them in a slow oven. These cakes may be split and buttered hot from the oven, or split, toasted, and buttered after they are cold.

## 55. DR. KITCHENER'S DIRECTIONS UPON CAKE-MAKING:-

I. The goodness of a Cake or Biscuit depends much on its being well baked; great attention should be paid to the different degrees of heat of the oven; be sure tohave it of a good sound heat at first, when, after its being well cleaned out, may be baked such articles as require a hot oven, after which such as are directed to be baked in a wellheated or moderate oven, and, lastly, those in a slow soaking or cool one. With a little care, the above degrees may soon be

## known.

II. In making Butter Cakes, attention should be paid to have the butter well creamed for should it be made too warm, it would
cause the mixture to be the same, and when put to bake, the fruit, sweatmeats, \&c. would in that event fall to the bottom.
III. Yeast Cakes should be well proved before put into the oven, as they will prove but little afterwards.
In making Biscuits and Cakes where butter is not used the different utensils should be kept free from all kinds of grease, or it is next to impossible to have good ones.
Iv. In buttering the insides of Cakemoulds, the butter should be nicely clarified, and when nearly cold, laid on quite smooth, with a small brush kept for that purpose.
v. Sugar and Flour should be quite dry, and a drum sieve is recommended for the sugar. The old way of beating the yolks and whites of eggs separate (except in very few cases) is not only useless, but a waste of time. They should be well incorporated with the other ingredients, and in some instances they cannot be beat too much.Kitchener's Cook's Oracle.
56. PASTE FOR CHAPPED HANDS. -Mix a quarter of a pound of unsalted hog's lard, which has been washed in water, and then in rose water, with the yolks of two new laid eggs, and a large spoonful of honey. Add as much fine oatmeal, or almond paste, as will work it into a paste.
57. For Chapped Lips.-Put a quarter of an ounce of benjamin, storax, and spermaceti, twopenny-worth of alkanet-root, a juicy apple chopped, a bunch of black grapes bruised, a quarter of a pound of unsalted butter, and two ounces of bees' wax, into a new tin saucepan. Simmer gently till all is dissolved, and then strain it through linen. When cold, melt it again, and pour it into small pots or boxes; if to make cakes use the bottoms of tea-cups.
58. Another.-Mix an ounce of spermaceti with an ounce of bitter almonds, and some powdered cochineal; melt it all together, strain it through a cloth in a little rose-water, and rub the lips with it at night.
59. THE CHOICE OF A PROFESSION. - 1st. Be cautious not to choose as you like. It is a fact, that we are apt ever to admire those excellences which we perceive in others, but do not ourselves possess; and hence he, who has little flow
of speech, appreciates most highly the elo. quence of the orator. The tardy writer longs to express his own and others thoughts with the facility of the stenographist. The choice of a profession, guided merely by "like and dislike," is almost sure to be a blunder of a most serious character. 2nd. Be cautious to examine your own abilities by recognised tests; and select that employment which affords the greatest opportunities for the exercise of your mental qualifications. How many a youth, delighted by a forensic display of talent, has rushel impetuously into the study of the law, forgetting totally that his natural activity of habit, sanguine temperament, and want of adaptation to laborious sedentary pursuits, was at variance with the life he had too hastily chosen? How many boys, fascinated by the travels of Basil Hall, or the narratives of Captain Marryatt, have resolved upon a seafaring life, forgetting that their delicate constitution, and want of physical strength, unfitted them for the laborious duties of a sailor! We have advised selfexamination by recognised tests of ability, because neither parents nor children are free from the liability to believe as they wish. 3rd. As a general rule, it is an error to decide upon a particular profession because a relation will undertake the education of the student in the preliminary steps. In almost all cases, both pupil and master expect too much from each other when they are connected by ties of relationship, which circumstance leads to a diminution of respect on the one part, and of discipline on the other, until at last the supposed advantages of the connection are more than counterbalanced. This rule is liable to many exceptions, however, and it is possible to conceive cases in which master and pupil, though they be related, understand their relative positions correctly. Finally, as we have opened this subject, we feel ourselves bound to advise-Fourthly. That the moral and religious tendencies of the student should be seriously considered before he enter upon a course of study for the minis-* try; for he will experience no happiness from the highest preferment in it, if he be conscious ever of an antagonism between his duties and his religious and moral feelings.
60. SHOOTING STARS. - Shooting stars, or meteors, are objects, the nature

## A FAMILY REPOSITORY.

and origin of which is involved in some obscurity, but which have excited, of late years, an increasing interest, owing to their periodical appearances in unusually great numbers. Their apparent magnitudes are widely different; but the globular form appears in all. They are equally numerous in all climates and weathers, and appear at all times of the year, though they have been seen in greater numbers in this country in August and November than at other periods. Some of them-leave trains of light, which continue for a few seconds, or even minutes, behind them. These trains usually assume the form of a cylinder, the interior of which is devoid of luminous matter. The subject was involved in complete uncertainty, till Chladni published his celebrated work on the causes of the masses of iron, and other similar substances, found in Śiberia by Pallas, in which he clearly established, by comparing the circumstances of a great multitude of observations, that the fireballs are meteors having their origin beyond our atmosphere; that, in fact, they are masses of nebulous matter, moving in space with planetary velocities, which, when they come in the way of the earth in its revolution about the sun, and enter the atmosphere, are inflamed by its resistance and friction, and become luminous, sometimes scattering masses of stone and iron on the ground. The predominating direction of the shooting stars is from north-east to south-west, contrary to that of the earth in its orbit. Their altitude varies from 6 to 600 miles, and their velocity, from 10 to 240 miles in a second. It is not probable that they are substances thrown out of lunar volcanoes. The hypothesis generally accepted is, that independently of the great planets, there exist in the planetary regions myriads of small bodies, which circalate about the sun, generally in groups of zones, and that some of these zones intersect the ecliptic, and are, consequently, encountered by the earth in its annual revolution. But there are many difficulties which appear to beset this theory, viz. -1st. The irregularity of the direction of shooting stars. 2 nd. Their enormous velocity. 3 rd. Their luminosity. 4th. Their near approach to the earth without being drawn to it. 5th. The convexity of their orbit towards the earth, sc. The
presumptions of a cosmical origin of the shooting stars, are chiefly founded on their periodical recurrence at certain epochs of the year, and the extraordinary displays especially on the 12 th and 13 th of November, the 10th of August, the 18th of October, the 23 rd and 24th of April, and the 6th and 7 th of December, and the 2nd of January. [The meteoric epochs have been arranged in the order of their importance, the greatest number of shooting stars having been observed upon the days first mentioned.] Connected with the subject of shooting stars, is that of aërolites, the fall of which is accompanied by the appearance of fire-balls. They resemble each other so closely in composition, that it may be said to be identical. Their exterior is black, as if they had been exposed to the heat of a furnace; while their interior is a greyish white. They are composed of sliex, magnesia, sulphur, iron in the metallic state, nickel, and some traces of chromium. The rarity of the components in the earth, and the identity of composition, indicate an extramundane but common origin. About the end of November, 1849, a shower of aërolites fell between Tunis and Tripoli, extending over the whole intermediate distance. A brilliant stream of light accompanied this fall of meteoric stones. On the 11th of February, 1850, a splendid meteor passed over Greenwich from west to east; which was also seen at Rugby and Hull.
61. MEALS.-The practice of eating at certain conventional periods of the day is never attended by any bad consequences. and is actually necessary in the present state of society. Habit exercises the greatest influence in the matter, and the man who has been in the practice of taking food at a certain hour of the day, will always, whilst in good health, feel hungry at that hour. Indeed, it sometimes happens that the stomach will only work at those hours to which it has been long accustomed, and infirmity has frequently been traced to a change in the hour of taking a meal, more especially dinner, which, with most people, is the chief meal of the day. The habit of eating to repletion which many are too apt to indulge in, should be carefully avoided, as more evils result from it than is generally inagined.
62. SKATING.-Beginners should make their first attempt upon ice which is neither too smooth nor too rough.


Fig. 1.
63. It is important, in the first instance, to see that the skates are firmly fixed on, which may be ascertained by a few movements of the feet prior to commencing skating.
64. For putting on the skates the young beginner should kneel down, and fasten the skates on one foot first.
65. There are different kinds of skates; but we need only mention two, the fluted and the plain. The fluted are the best for young beginners who can scarcely keep their footing, and who can travel over only a small surface of ice, because the groove or flute of the skate bites into the ice, and obtains a certain hold, just as the point of a knife does in soft wood. But for rapid skaters the fluted skates are unfit, as the grooves are apt to become filled with loose ice, and to throw the wearer.


Fig. 2.


Fig. 3.
66. In starting, strike out slowly with the right foot, bending a little forward, and bearing upon the inner edge of the skate. When the effect of the first step is lessening, strike out with the other foot, throwing your weight upon it gently, and again bearing on the inner edge of the skate. Fig. 1 shows the position to be taken at
starting, and Fig. 2 indicates the position into which the body is to be thrown when you desire to stop. The toes are to be raised up, the body bent gradually forward, and the arms employed to steady the body.
[During the skating season in London, and other large towns, there are numerous persons who attend in the parks, and lend lend skates and give lessons. Some persons call in the aid of sticks and chairs, but it is better to dispense with them if possible. It is a good plan to watch the moverients of the best skaters, and to imitate them. In the metropolis the Skating Clubs, meet in Kensington-gardens, and
Regent's-park, and afford beginners good Regent's-park, and afford beginners good opportunities of gleaning instruction.]
67. Where instruction cannot be ob. tained, the aid of a skilfnl friend, as in Fig. 4, will be of much service.


Fig. 4.
68. The skater should content himself with plain, or straight skating, before he attempts to form figures, and he should learn to use both sides of his skates. The hands are essential to balance the body and impart grace to its motions. The right hand should be held up towards the head in skating on the outside edge of the left skate, and the left hand should be raised when skating on the right outside edge. (Siee Fig. 5 and 6.)
69. The most difficult movement is that of advancing by crossing the feet alternately, and throwing the body in a leaning position to the opposite sides. This is one of the most graceful and pleasant movements in skating, and can only be accomplished after the learner has acquired some proficiency.
70. Another motion, called "The Salute," is somewhat difficult. There is the salute in a curved line, and also in the straight line. That in the straight line is the most difficult. The salute in a right line is ac-


Fig. 5.


Fig. 6.
complished by, after having well struck out, throwing the feet in a horizontal line, and placing the arms in the position indicated at Fig. 2. To describe the salute in a curved line, place the feet in a similar position, but so that the skates may describe the lines of a curve, and place the arms in the position indicated at Fig. 7.


Fig. 7.


Fig. 8.
71. To describe circles and curved s.aures is the chief accomplishment of the skp 'er. The best way is, to select a good piece of ice, in the centre of which a small object, a piece of stone, or bit of broken ice, is lying. Take a run proportionate to the number of circles you wish to accomplish. To form a curve on the outside edge, strike out on that edge, and balance the body so as to turn in a curve round the adopted
centre. Turn your head towards the centre, and elevate the outer arm, to guide the motions of the body. Fig. 8.
72. To perform a curve on the inside edge, you must, as in the former instance, select some object to indicate the centre, and, taking a sufficient run, strike out in the inner edge. The head and body should be in pretty nearly the position indicated in figure 8, but the leg on which you are skating shonld be held straight. The other leg should be held stiffly, with the suspended foot about eighteen inches from the other. Fig. 9.
73. Stopping,


Fig. 9. in the formation of curves, circles, $\& c$. , is effected as in ordinary stoppings, already explained (66), but it is considered more graceful to pirouette, by turning round quickly, and throwing the foot which is free, over that on which you are skating.
74. In skating backwards, the head and body should be inclined forward, and the feet should be struck


Fig. 10.


Fig. 11.
out backwards, the heel of the skate being slightly raised. The feet being occa-
sionally brought together will steady the movements and give confidence. Figure 10illustrates the position assumed in skating backwards.
75. Backward circles can only be performed by persons of some experience. Fig. 11. indicates the position in making backward movements, and Figs. 12 and 13 indicate the variations of those positions. Their movements may also be terminated by the priouette.


Fig. 12.
76. In skating backwards, the oblique stop is frequently adopted. It is accomplished by setting down the raised foot in an oblique direction, and stiffening the leg. This may be done with either foot.
77. Turning round is accomplished by bringing one heel be hind the other, and giving the body a twist in harmony with the position of the feet.
78. The figure of $\infty$ is effected by crossing the legs, and striking from the outside. It is accomplished by forming a perfect circle with one foot, then crossing the legs and forming the other circle.


Fig. 18.


Fig. 14.

The figure $\propto$ is formed by striking out on the inner edge, backwards, and gradually
inclining side ways. It is somewhat more difficult than the figure of $\infty$.
79. Other figures that may be formed are the spiral, the kite, the fish, the oval, the maze, the lovers' knot, the figure of six, \&c., \&c.
[The best plan will be for the learner, after having perused these instructions, and paid attention to the figures and positions, to watch the movements of accomplised skaters and gra-
dually imitate them.]
80. ADVICE AND PRECAUTIONS ON SKATING. - Never venture on the ice until you are certain of its ability to support your weight, and avoid the parts where numbers of people congregate.
Select those places for skating where the water is not very deep.

Look out sharply for loose objects lying upon the ice, by coming in contact with which you might be tripped up.
If you are unlucky enough to fall in, where the water is deep, spread out your arms over the broken ice, and keep as still as possible, waiting for assistance.

Upon being taken out of the water, let some one take off your skates, and then run home as quickly as possible. Pull off your wet clothes, and take a table spoonful of spirits, and go to bed.

For skating, the clothes should fit rather closely, without being too tight. Long skirted coats, and loose trousers will be found very inconvenient.
[We do not offer these precautions with the view of intimidating beginners, but because our information upon all subjects must be complete. Skating is not only a most healthful, but a most
delightful and graceful delightful and graceful exercise, and out of the thousands of persons who skate in the winter, not one in a thousand meets with an accident,
and with proper precaution and with proper precautions even this proportion
may be diminished.]
81. SLIDING.-Sliding is a modification of skating, and affords a healthy exercise, and capital recreation to young people. To slide we'l, take a good run, striking off with both feet, and maintaining your equilibrium by elevating the arms, and leaning the body slightly forward. The instructions given for skating will assist persons learning to slide. For although
the movements of sliding cannot be the movements of sliding cannot be varied as in skating, persons may slide forward, backward, upon one foot, upon two feet, and turn in the midst of sliding. The best plan is first to acquire skill and confidence
in the straight-forward slide, and gradually to vary the movements.
[Avoid cutting out slides upon public pavements and in frequented places. Many old persons have fallen down and been severely injured thereby, and no good boy would wish to expose any person to unnecessary danger.]
82. DEATHS IN COLD WEATHER.Diseases of the chest, which arise in winter, form a more fatal class than those of the bowels which prevail in summer. This of itself is a cause of increased winter mortality, butitis to be rememberedalso that diseases of the chest do not arise in winter only ; thatconsumptionisa disorder commonin England, that asthma and chest complaints of many persons who are advanced in years are dangerous all the year round, and are in winter not produced but aggravated. Very young children and old people who maintain their vital heat with difficulty, are liable to be destroyed by a succession of frosts; everything, in fact, tells against the truth of the old proverb that "a green Christmas makes a fat churchyard."
83. Constant proof of the fallacy of such a proverb is afforded by the yearly reports of the Registrar-General ; but we shall find no more striking illustration of its falsehood than the comparison made by Dr. Heberden between the mortality of the winter of seventeen 'ninety-five and that of the winter of seventeen'ninety-six. The five first weeks of the former year were unusually cold; the corresponding weeks of the year following were unusually mild. Of the two winters the one was the coldest and the other the warmest of which anyaccurateaccount wasextant. There wasadifference between the one January and the other of quite twenty degrees. The mortality in the cold winter month was nearly double that of the mild one. In the first five weeks of the one year, there were two thousand eight hundred and twenty-three deaths; in the corresponding weeks of the year following, the deaths numbered only one thousand four hundred and seventy-one.
84. What made the difference? Who were the people whom the cold weather killed and the mild weather spored? They were the very young and the very old. In January, 'ninety-five, of persons above sixty years old there died in London seven hundred and seventeen; in January,'ninety-
six, of persons above sisty years old there died only one hundred and fifty-three, or scarcely more than one-fifth of the former number. Dr. Heberden s?ys that the number of deaths among persons older than sixty maintains a steady correspondence with the state of the thermometer, and that you might tell when a frost came or went by looking at the ages in the tables of mortality.
85. In the cold January, 'ninety -five, there died in London of consumption eight hnndred and twenty-five persons; in the warm January, 'ninety-six, the number of deaths from consumption was three hundred and forty-two.
86. In the cold January,'ninety-five, of persons afflicted with asthma or shortness of breathing, there died two hundred and forty-nine ; in the warm January, 'ninetysix, there died of such persons, twentynine.
87. The number of deaths from palsies or apoplexies is also greatest in very cold weather, because then the blood is driven from the surface, and, accumulating in in. ternal parts, is liable to press with increased force upon the head. To healthy men this is a cause of increased vital energy; to some unhealthy men it is a cause of death. In January, ninety-five, the deaths from apoplexy and palsy numbered fifty-two ; in the same month of the year following they were but thirtyone. The cold kills some persons at once ; in others it causes diseases which prove fatal in five or six weeks. Aged persons, infants, and perscns who have any affection of the chest ought therefore in winter never to sleep in a room of which the temperature falls lower than within eight degrees of freezing. Fatal privation often at this season is the want of fuel and warm clothing to the weakly bodies of the poor.

## - Household Words Almanac.

[These facts may be turned to good account by our readers, by influencing them to pay proper regard to the manasement of clothing, and the regulation of the temperature of their sitting and sleeping-rooms. It is an easy thing to understand that health requires us to guard against sudden changes, limin shoes in wet weather, light clothing in frosty days, sudden exit from hot rooms into cold air, quitting a warm fire-side to lie down in a cold sleeping-
room, are all agencies by which the room, are all agencies by which the great enemies of man, disease and death, are mate. rially aided.]
88. A WEEK'S WORK.

Sunday-church doors enter in, Rest from toil, repent of sin; Strive a heavenly rest to win. Mondar-to your calling go, Serve the Lord; love friend and foe; To the tempter, answer No.
TUESDAY-do what good you can; Live in peace with God and man; Remember life is but a span!
Wednespay-give away and earn; Teach some truth, some good thing learn; Gladly good for ill return.
THURSDAY-build your house upon Christ, the mighty corner stone; Whom God helps, his work is done. Friday-for the truth be strong; Own your fault, if in the wrong; Put a bridle on your tongue.
Thavibiate to his trank God and sing;
Tribute to his treasure bring; Be prepared for Terror's king!
Thus your hopes on Jesus cast Thus let all your weeks be past, And you shall be saved at last.
89. LITTLE CHILDREN.-" them the poetry of the world-the fresh flowers of our hearths and homes; flittle conjurors, with their, 'natural magic,' evoking by their spells what delights and enriches all ranks, and equalises the different classes of society. Often as they bring with them anxieties and cares, and live to occasion sorrow and grief, we should get on very badly without them. Only think-if there was never anything anywhere to be seen, but great grown-up men and women! How we should long for the sight of a little child! Every infant comes into the world like a delegated prophet, the harbinger and herald of good tidings, whose office it is, ' to turn the hearts of the fathers to the children,' and to draw ' the disobedient to the wisdom of the just.' A child softens and purifies the heart, warming and melting it by his gentle presence; it enriches the soul by new feelings, and awakens within it what is favourable to virtue. It is a beam of light, a fountain of love, a teacher whose lessons few can resist. Infants recal us from much that engenders and encourages selfishness, that freezes the affections, roughens the manners, endurates the heart; they brighten the home, deepen love, invigorate exertion, infuse courage, and vivify and sustain the charities of life."-Rev. T. Binney.
90. INSTINCT AND REASON.-All the actions and movements of the animal world may be divided into three classesinvoluntary, instinctive, and rational : the former being common to every vital structure, both animal and vegetable; and the two latter being posstssed, in various proportions, both by man and every class of the lower animals. Instinct is a natural propensity prior to experience, and independence of instruction, tending to selfpreservation or the perpetuity of the race; while rational actions are always the result of instruction or deliberation, directed to some end of which the animal is conscious, and for the accomplishment of which he is capable of selecting and adapting ap.
propriate means.
91. TALKERS. - Nothing is more generally exploded than the folly of talking too much; yet I rarely remember to have seen five people together, where some one among them has not been predominant in that kind, to the great constraint and disgust of all the rest. But among such as deal in multitudes of words, none are comparable to the sober deliberate talker, who proceeds with much thought and caution; makes his preface; branches out into several digressions; finds a hint that puts him in mind of another story, which he promises to tell you when this is done; comes back regularly to his subject; cannot readily call to mind some person's name; holding his head, complains of his memory; the whole company all this while is in suspense; at length, he says it is no matter, and so goes on. And, to crown the business, it perhaps proves at last a story the company has heard fifty times before ; or, at the best, some insipid adventure of the relater.-Swift.
92. HOUSEHOLD WORDS. - "Good bye" is an abbreviation of "God be with ye;" and "adieu" is derived from the French "à Dieu," signifying " to God," or "God protect you."
93. RAINY DAYS.-The average number of rainy days in the year on the eastern side of our island is 135, while on the western side it is 205 . The annual rainfall at Keswick (omitting decimals) is 62 inches ; at Lincoln, 24 inches; at Liverpool, 34 inches; at Aberdeen and London, 20 inches ; at Manchester, 36 inches ; at Edin.
burgh, 22 inches. Winter has most rainy days, but summer the most rain.
94. TELL YOUR WIFE.-Yes, the only way is to tell your wife just how you stand. Show her your balance-sheet. Let her look over the items. You think it will hurt her feelings. No, it won't do any such thing. She has been taught to believe that money was with you, just as little boys think it is with their fathers-terribly hard to be reached, yet inexhaustible. She has had her suspicions already. She has guessed you were not so prosperous as you talked. But you had so befogged your money affairs that she, poor thing, knows nothing about them. Tell it right out to her, that you are living outside your income. Take her into partnership, and I'll warrant you'll never regret it. There may be a slight shower at first ; but that's natural. Let her see your estimate, and when you come home again she will show you that you have put her bills too high. True, she has had an eight dollar bonnet last winter, but "it is just as good as ever; a few shillings will provide it with new strings, and refit it a little; the shape," she says, " is almost exactly as they wear them now." And you will be surprised to see how much less expensive she can make your own wardrobe. She will surprise you with a new vest-not exactly unfamiliar somehow, looking as if in another shape you had seen it before-yet new as a vest, and scarcely costing a dollar, where you had allowed five.

Old cravats will experience a resurrection in her hands, coming out so rejuvenated that nobody but those who are let into the secret would suspect that they are old friends in new shapes. The gown you were going to buy-out of what forgotten chest she has gathered the materials you cannot imagine-but there it is, comfortable and warm, and just the thing you wanted for the long winter evenings that are coming on as fast as the almanac will let them.

You will find a wonderful change in her tastes and appetites. Whereas she always fancied what was a little out of season, or just coming into market-now if beef is dear, she thinks " boiled mutton is delight-ful-as tender as chicken." If lamb rises, and fish are plenty, she thinks "stripped bass is so good, occassionally," and always insists on having it on Fridays. Whereas,
before, she must hear all the musical celebri-ties-now she is " out of all patience with these singers." If Jenny Lind were to return and sing some of our own sweet airs, she'd like to hear her; but she has had enough of Italian extravagances, all written on the leger lines below or above, as if it were a sin to tarry long on the common staff.

Before you have thought much about it, you will find yourself spending most of your evenings at home, and such evenings, too! so full of domestic enjoyment, and fireside pleasures, that you will look with wonder on the record of last year's expenses, and marvel that you found time or relish for the costly entertainments that so seriously taxed your port-monaie.
My dear friend, if your outgoes threaten to exceed your incomes, be sure and tell your wife of it. Not in a tone and manner that will lead her to think you don't want her to buy furs this winter, but just as if you wanted a counsellor in the day of your trouble. And if she does not come up, heart and soul, and most successfully to your relief, put me down for no prophet.
[Reader! this is the time to act upon the foregoing advice. Christmas is here with its merry-makings, its good fare, its holly branches, and kissing bushes. You properly make up your accounts with the world at this'season, and see how you stand in matters of debit or credit. Now is the time to " tell your wife," to give her a living and active interest in your welfare. Let her know, not only the balauce-sheet of your books, but the true state of your heart: remember that she is a partner in all that concerns you most deeply ; and depend upon it, if you act upon our advice, before another year has flown you will have reason to rejoice that you have "told your wife!"]

## 95. THINGS TO BE FOUND OUT.-

 Nature is not exhausted. Within her fertile bosom there may be thousands of substances, yet unknown, as precious as the only recently found gutta percha. To doubt this would be to repudiate the most logical inference afforded by the whole history of the earth. Corn and grapes excepted, nearly all our staples in vegetable food are of comparatively modern discovery. Society had a long existence without tea, cotton, sugar, and potatoes. Who shall say there is not a more nutritious plant than the sugar-cane-a finer root than the pota-toe-a more useful tree than the cotton? Buried wealth lies everywhere in the bowels of the earth.96. GRAMMAR IN RHYME. FOR OUR YOUNG READERS.
I. Three little words you often see, Are Articles- $a, a n$, and the.
II. A Noun's the name of any thing, As, school, or garden, hoop, or
swing.
III. Adjectives tell the kind of Noun; As great, simall, pretty, white, or
brown.
IV. Instead of Nouns the Pronouns
stand-

Her hearl, his face, your arm, my
hand.
v. Verbs tell of something being done-
To read, write, count, sing, jump,
or run.
vi. How things are done the Adverbs
tell; As slowly, quickly, ill, or well.
vir. Conjunctions join the words toge-
ther, As, men and women, wind, or
weather.
viir. The Preposition stands before A Noun; as, in or through a door. IX. The Interjection shows surprise ; As, oh! how pretty ; ah! how
wise.
The whole are called Nine Parts of
Speeeh, Which Reading, Writing, Speaking,
teach. teach. 97. CRISTALISATION. - The illustrations given below are charming parlour and drawing-room ornaments, and the cheapest and prettiest specimens of metallic crystalisation perhaps extant. Many very interesting experiments can be performed with salts, the crystalisation of which into varieties of prisms and forms is sure to afford an almost endless amusement to the young chemical practitioner. The process of crystalisation is best conducted in a cool
place.
98. Globe Silver Trees.-Pour into a glass globe or decanter a quarter of an ounce of nitrate of silver, dissolved in a pint or more of filtered water, and lay the vessel on the chimney-piece, or in some
place where it is not likely to be disturbed.
Then ppur in a quarter of an ounce of mercury. In a short time the silver will be precipitated in the most beautifui arborescent furm, resembling real vegetation.
99. Lead-tree.-In a common glass jar or decanter put half an ounce of sugar of lead, and fill it near to the bottom of the neck with rain-water ; then suspend, by means of silk or brass wire, a piece of zinc. A decomposition of the salt will commence; the lead will be set at liberty, and attach itself to the zinc, and form a metallic tree or bush, the leaves of which are laminal, or in plates of metallic lustre.
100. Tin-tree.- Into a vessel, similar to the foregoing, pour rain-water, as before; add three drachms of muriate of tin and ten drops of nitric acid, and shake the ves. sel until the salt is completely dissolved. Suspend a piece of zinc as before, and the metal will in like manner be precipitatedappearing similar to the lead-trees, but having more lustre. This and the preceding experiment, and all others similar to them, are in reality galvanic, and show the powers of electricity in producing chemical action. [For numerous interesting experiments upon the crystalisation of salts, see Index.]
101. ADVICE TO BUSINESS MEN.In your converse with the world avoid anything like a juggling dexterity. The proper use of dexterity is to prevent your being circumvented by the cunning of others. It should not be aggressive.
Concessions and compromises form a large and a very important part of our dealings with others. Concessions must generally be looked upon as distinct defeats; and you must expect no gratitude for them. I am far from saying that it may not be wise to make concessions; but this will be done more wisely when you understand the nature of them.
In making compromises, do not think to gain by concealing your veiws and wishes. You are as likely to suffer from its not being known how to please or satisfy you, as from any attempt to overreach you, grounded on a knowledge of your wishes.
Delay is in some instances to be adopted
dvisedly. It sometimes reasedly. It sometimes brings a person tn mind is so occupied with could; when his, mind is so occupied with one idea, that he
completely over-estimates its relative importance, he can hardly be brought to look at the subject calmly by any force of reasoning. For this disease time is the only doctor.

A good man of business is very watchful, both over himself and others, to prevent things from being carried against his sense of right in moments of lassitude.

After a matter has been much discussed, whether to the purpose or not, there comes a time when all parties are anxious that it should be settled; and there is then some danger of the handiest way of getting rid of the matter being taken for the best.

It is often worth while to bestow much pains in gaining over foolish people to your way of thinking; and you should do it soon. Your reasons will always have some weight with the wise. But if at first you omit to put your argument before the foolish they will form their prejudices; and a fool is often very consistent, and very fond of repetition. He will be repeating his folly in season, and out of season, until at last it has a hearing; and it is hard if it does not sometimes chime in with external circumstances.

A man of busiaess should take care to consult occasionally with persons of a nature quite different from his own. To very few are given all the qualities requisite to form a good man of business. Thus a man may have the sternness and the fixedness of purpose so necessary in the conduct of affairs, yet these qualities prevent him, perhaps, from entering into the character of those about him. He is likely to want tact. He will be unprepared for the extent of versatility and vacillation in other men. But these defects and oversights might be remedied by consulting with persons whom he knows to be possessed of the qualities supplementary to his own.

Men of much depth of mind can bear a great deal of counsel ; for it does not easily deface their own character, nor render their purposes indistinct.
102. THE THERMOMETER. - This word means literally " measure of heat." The idea of determining the intensity of this subtle agent emanated with Sanctario, an Italian philosopher, in the year 1620.
103. His plan was improved upon by Fahrenheit, a German philosopher, who lived about the year 1720, and who was the
inventor of the therometer now used in this country and America. The form of Fahrenheit's thermometer is too well known to need description. Fahrenheit's thermometer is deficient in this respect, viz., that the inventor laboured under a mistake when he imagined 0 , or zero, to be the extreme of cold. Zero is the temperature of equal parts of snow and salt, and Fahrenheit thought that point was destitute of all heat. Repeated experience has proved that the mercury often falls lower, even in temperate latitudes. The freezing point of water he marked by plunging his thermometer into water in that state, after having marked the degrees on his scale, and found it 32 deg., the heat of boiling water 212 deg., while other temperatures, such as summer heat, blood heat, and fever heat, are merely arbitrary marks supposed to be correct on the average. The only positive marks are the freezing point, 32 deg., and the boiling point, 212 deg.
104. French thermometers are differently marked, but equally wrong, as the freezing point is placed at the temperature of mingled snow and salt, or zero, when in reality water freezes at a much higher temperature The boiling point in the thermometer in use in France is marked 100 deg. In Germany and Russia the freezing point of the thermometer is also marked zero, and the boiling point 80 deg .
105. At 40 deg. below zero, mercury becomes solid; consequently, to mark the degrees of cold sometimes experienced in Russia and the Arctic Regions, spirits of wine is used, which has never been known to freeze from natural causes, although it is said that a Scotch chemist once succeeded in producing such an extreme degree of cold as to freeze even alcohol. If he did so, he never divulged the secret of chemical agency by which he effected it.
106. MEN love things, as facts, possessions, and estates; and women, persons. Even in childhood the girl loves an imitation of humanity - her doll, and works for it ; the boy gets a hobby-horse or tools, and works with them. But the noblest quality wherewith nature has endowed woman, for the good of the world, is love-that love which seeks no sympathy and no return. The child is the object of love, and kisses, and watching; and auswers them only by
complaints and anger; and the feeble creature that requires the most, repays the least. But the mother goes on ; her love only grows stronger, the greater the need, and the greater the unthankfulness of its object -and while fathers prefer the strongest of their childern, the mother feels most love for the feeble.
107. THE BANK OF ENGLAND NOTE. -The Bank of England possesses no security which may not be known by any person who will make himself acquainted with the following characteristics of the paper, the piate printing, and the type printing of the note. The paper is distin-guished-1. By its peculiar colour, such as is neither sold in the shops, nor used for any other purpose. 2. By its thinness and transparency-qualities which prevent any portion of the printing on the note being washed or scratched out without a hole being made. 3. By its characteristic feel, which consists of a singular crispness and toughness, owing to the fact that the Bank paper is made from new linen and cotton, not from rags. 4. By the peculiar wire mark or water mark, which can only be produced when the paper is in a state of pulp; consequently the forger must procure a mould, and make his own paper, both requiring the skill of such first-rate artisans as are not likely to be met with in the haunts of crime. 5. By the three deckle or rough edges. These edges are produced when the paper is in pulp; two notes being placed in the mould, and divided lengthways. The deckle is the raw edge of the paper, and cannot be imitated by cutting. 6. By the strengh of the paper: a bank note will lift a hundred-weight, if carefully adjusted. The printing is of two kinds, type and plate; the paper is moistened by water driven through its pores by the pressure of the atmosphere ; 30,000 double notes are thus moistened in the space of an hour. the ink used is made at the bank, from linseed oil and the charred husks and vines of Rhenish grapes; this gives a peculiar velvety black to the mark in the left hand corner of the note. The notes are numbered by a machine which cannot err ; and, lastly, are authorised by the signature of the clerk. The bank notes are printed on the side of the paper which receives the watermark, so that, if the paper be split, the unprinted
surface only retains the slightest trace of that mark.
108. DECEMBER.-December was the tenth month in the old Roman world. Charlemagne called December the "Holy Month," because the festival of Christ's Nativity occurred in it. The Saxons called it Winter-month, or Guilerra, the first yule.
(See 4).
109. THINGS IN SEASON IN DE-CEMBER.-Meat. - Beef, house-lamb, mutton, pork, doe venison, and veal.
110. Poultry and Game.-Geese, Turkeys, Pullets, Pigeons, Capons, Fowls, Chickens, Rabbits, Hares, Woodcocks, Snipes, Larks, and all small birds; Pheasants, Partridges, Guinea Fowl, Wild Ducks, Teal, Grouse, Ptarmingan, Widgeon, Dotterel, and Dun-birds.
111. Vegetables. - Jerusalem Artichokes, Borecole, Beet, Brocoli, Winter Cabbage, Cardoons, Carrots, Celery, Dried Herbs, Onions (Spanish), Leeks, Savoys, Shalots, Asparagus (forced), Scorzonerk, Skirrets, Spinach, Truffles, and Turnips. 112. Fruit. - Pears, Apples, Nuts (various), Medlars, Foreign Grapes, Oranges, Dried Figs, \&c.
113. Fisk.-Cod, Turbot, Skate, Halibut, Soles, Gurnets, Carp, Pike, Gudgeons, Eels, Smelts, Dories, Crabs, Lobsters, Oysters, \&c. 114. COOKERY FOR DECEMBER.We intend to supply, in each number of the "Corner Cupboard," instructions for cooking the leading dishes in season, and afterwards to give receiptsforsuchotherdishes as, with those already given, will make our work one of complete information upon every branch of cookery.


SIRLOIN OF BEEF.
115. Sirloin of Berf.-Average weight 13 lb .6 oz , proportion of bone 1 lb .9 oz . 116. Modes of Cooking. - Roasted, or
boned and stewed, broiled in slices, stewed,

Hashed and minced, or made into mock hare, when cold.
117. Roasting Sirloin. - A Sirloin of about fifteen pounds, will require to be before a large sound fire about three and a half or four hours; take care to spit it evenly, that it may not be heavier on one side than the other; put a little clean dripping in the dripping-pan (tie a piece of paper over it to preserve the fat), baste it well as soon as it is put down, and every quarter of an hour all the time it is roasting till the last half hour ; then take off the paper, and make some gravy for it; stir the fire and make it clear ; to brown and froth it, baste it with butter, and dredge it with flour and salt mixed together in equal quanties; let it go a few minutes longer, till the froth rises; take it up. Garnish it with a hillock of horseradish, scraped as fine as possible with a very sharp knife. A Yorkshire pudding is an excellent accompaniment. The joint should hang, before cooking, as long as possible. The marrow which was along the back bone may be removed prior to roasting; and the fat freed from kernels. Wipe away any moisture from the surface of the meat. The joint should at first be set at a distance from the fire, and drawn nearer as it has gradually been warmed through. In hot weather, the joint will take less time to roast than in cold.
[The following interesting account of the "creation" of "Sir Loin," is given by Dr. Kitchener in his invaluable "Cook's Oracle."
This joint is said to owe its name to King Charles the Second, who, dining upon a Loin of Beef, and being particularly pleased with it, asked the name of the Joint; said for its merit it should be knighted, and henceforth called Sir-Loin.
"Our second Charles, of fame facete, On Loin of Beef did dine;
He held his sword, pleas'd. o'er the meat, 'Arise thou famed Sir-Loin.'"
Ballad of the New John Barleycorn. The ballad of "The Gates of Calais" calls it
"Renowned Sir-Loin, ofttimes decreed The theme of English Ballad;
On thee our Kings oft deign to feed, Unknown to Frenchmen's palate; Then how much doth thy taste exceed Soup-meagre, frogs, and solad !"]
118. Carving the Sirloin.-The fillet, which lies underneath the bone, as the joint is placed (115) is usually very tender,
and is much approved. The joint should he turned over, and slices cut from the fillet in the direction of 3-4, that is across. The meat above the bone is usually cut in the direction of $5-6$; but may be cut in the direction of $3-4$. The carver should ask the guests whether they prefer the upper or the under cut. Slices of the thin end, 6 , should be served with the other parts. And pieces of the rich fat, 1 , should be distributed with the lean.


ROAST TURKEY.
119. Roast Turkey, Turkey Poults, and other Poultry.-A fowl and a turkey require the same management at the fire, only the latter will take longer time. Let them be carefully picked, break the breast-bone (to make them look plump), and thoroughly singe them with a sheet of clean writing paper. Prepare a nice brisk fire for them. Make stuffiing according to 120 ; stuff them under the breast where the craw was taken out; and make some into balls, and boil or fry them, and lay them round the dish; they are handy to help, and you can reserve some of the inside stuffing to eat with the cold turkey, or to enrich a hash. Score the gizzard; dip it in the yolk of an egg, or melted butter, and sprinkle it with salt and a few grains of cayenne; put it under one pinion, and the liver under the other; cover the liver with buttered paper, to prevent it getting hardened or burnt. When you first put your turkey down to roast, dredge it with flour, then put about an ounce of butter into a basting ladle, and as it melts baste the bird. Keep it at a distance from the fire for the first half hour that it may warm gradually, then put it nearer, and when it is plumped up, and the steam draws towards the fire, it is nearly done enough ; then dredge it lightly with flour, and put a bit of butter into your basting
ladle, and as it melts baste the turkey with it ; this will raise a finer froth than can be produced by using the fat out of the pan. A very large turkey will require about three hours to roast it thoroughly ; a middling sized one, of eight or ten pounds, about two hours; a small one may be done in an hour and a half. Turkey poults are of various sizes, and will take about an hour and a half. Fried pork sausages are a very savoury accompaniment to either roasted or boiled turkey. Sausage meat is sometimes used as stuffing, instead of the ordinary force meat. If you wish a turkey, especially a very large one, to be tender, never dress it till at least four or five days (in cold weather, eight or ten) after it has been killed, unless it be dressed immediately after killing, before the flesh is cold; be very careful not to let it freeze. Hen turkeys are preferable to cocks for whiteness and tenderness, and the small tender ones, with black legs, are most esteemed. Send up with them oyster, egg, and plenty of gravy sauce.
120. Stuffing for Roast Turkey, Veal, Fowl, \&c.-Mince a quarter of a pound of beef marrow (beef suet will do), the same weight of bread crumbs, two drachms of parsley leaves, a drachm and a half of sweet marjoram (or lemon thyme), and the same of grated lemon peel, an onion, chopped very fine, a little salt and pepper, pound thoroughly together, with the yolk and white of two eggs, and secure it in the veal with a skewer, or sew it in with a reedle and thread. Make some of it into balls or sausages; flour and fry or boil them, and send them up as a garnish, or in a side dish, with roast poultry, veal, or cutlets, \&c. This is sufficient quantity for a turkey poult; a very large turkey will require twice as much; an ounce of dressed ham may be added to the above, or use equal parts of the above stuffing and pork sausage meat.
121. Carving.-A turkey should not be divided till the breast is disposed of; but if it be thought proper to divide, the same process must be followed as directed in a fowl. The following is the best mode of serving this delicious bird:-Begin cutting close to the breast-bone, scooping round so as to leave the mere pinions. Each slice should carry with it a
portion of the pudding, or force-meat, with which the craw is stuffed.
[The directions for carving a fowl, which will be hereafter given, will contain illustrated in-
staketions for the complete dissection, stanctions for the complete dissection, and as these directions will apply to the carving of
turkies, we shall make furt turkies, we shall make further reference to of
method of carving roast turkies.]


GOOSE.
122. Roast Goose.- When a goose is well picked, singed, and cleaned, make the stuffing with about two ounces of onion, and half as much green sage; chop them very fine, adding four ounces of stale bread crumbs, a bit of butter about as big as a walnut, and a very little pepper and salt ( to this some cooks add half the liver, parboiling it first), the yolk of an egg or two, and, incorporating the whole together, stuff the goose ; do not quite fill it, but leave a little room for the stuffing to swell. From an hour and a half to an hour and threequarters will roast a fine full grown goose. Send up gravy and apple-sauce with it. Geese are called green till they are about four months old. The only difference between roasting these and a full-grown goose, consists in seasoning it with pepper and salt instead of sage and opions, and roasting it for 40 or 50 minutes only.
123. Goose or Duck Stuffing.-Twothirds onion, one-third green sage, chopped fine, bread crimbs equal in weight to the sage and onions ; season with a little pepper and salt. Some omit the bread crumbs, and some again do not like the onions, while others add to them a clove of garlic.
124. Carving a Gooseor Duck:-Cutoff the apron-1-1-1-of the goose, and pour into the body a large spoonful of gravy, which should be mixed with the stuffing. Some persons put, instead of the gravy, a glass of port wine, in which a large teaspoonful of mustard has been previously stirred. Cut as many slices from the breast $-3-2-$ as possible, and serve with a portion of the apron to each plate. When the breast is all served, and not till then, cat off
the joints; but observe, the joints of water fowl are wider spread and go farther back than those of land fowl.
125. A Roasted Pheasant should have a smart fire, but not a fierce one ; baste it, butter and froth it, and prepare sauce for it. Some persons (the pheasant being a dry bird) put a piece of beef or rump-steak into the inside before roasting. It is said that a pheasant should be suspended by one of the long tail-feathers till it falls. It is then ripe and ready for the spit, and not before. If a fowl be well kept, and dressed is a pheasant, and with a pheasant, few persons will discover the pheasant from the fowl.


PHEASANT.
126. Carviny a Pheasant.-Fix your fork in the centre of the breast, slice it down, in the direction $1-2$; remove the leg by cutting in the sideway direction, then take off the wing, taking care to miss the neckbone. When the legs and wings are all taken off, cut off slices of the breast. The merrythought is separated by passing the knife under it, towards the neck; the other parts are cut as before directed in a fowl. The breast, wings, and merrythought, are the favourites, particularly the former, but the leg has a higher flavour.


PARTRIDGE.
127. Partridges, Guinea Fowls, Pea fowls, Blackcock, Grouse, and MoorGAME, are dressed in the same way as pheasants. Partridges are sent up with rice sauce, or bread sauce, and good gravy. Blackcock, moorgame, and grouse, are sent up with currant jelly and fried bread crumbs.
128. Carving Partridges and Pigeons.Partridges are carved like fowls, but the breast and wings are not often divided, the bird being small. The wing is the prime bit, particularly the tip; the other choice parts are the breast and merrythought. Pigeons may be cut in two, either from one end to the other of the bird, or across.


SNIPE.
129. Silpes and Woodcocis are never drawn; they should be tied on a small bird spit, and put to roast at a clear fire; a slice of bread is put under each bird, to catch the trail, that is, the excrements of the intestines; they are considered delightful eating; baste with butter, and roth with flour; lay the toast on a hot dish, and the birds on the toast ; pour some good gravy into the dish, and send some up in a boat. They are generally roasted from twenty to thirty minutes-but some epicures say, that a woodcock should be just introduced to the cook for her to show it the fire, and then send it up to table. Garnish with slices of lemon. Snipes are dressed in the same way, but require less time.
130. Carving a Snipe consists simply in cutting it in two.
131. THE PHENOMENA OF DE-CEMBER.-The trees are bare and vegetation seems dead. When the first frosts set in the effect of the cold upon growing vegetation are mest singular. A plant which was green the day before is white with frost in the early morning which follows, and fades into a dismal black as soon as the sunbeams begin to warm the frozen branches, and melt the fringe of hoar-frost which sparkles upon the foliage which it killed while it adorned. The explanation is not difficult, for we find an anology in the experiences of animal life. There are many anımals which bear an exposure, for a considerable time, to severe cold, without suffering material injury; and these same creatures will often be able also to resist the injurious effects of an equal extreme of heat; but if
they be suddenly removed from the cold to the heat, or the reverse, they suffer inflammation, mortification, and death. The human subject often, from severe cold, loses sensation in parts of the body; and these are precisely in a similar condition to the parts of plants under the influence of frost. The vital functions are suspended; the blood, like the fluid sap in the plant, ceases to flow; the nerves of sensation refuse to perform their office, either wholly or in part. If such a part of the body gradually passes from its dead condition, no ill effects will ensue; but if an attempt be made, by the injudicious application of warmth, to promote a sudden reaction, the most serious results may follow. In slight cases chilblains will result; in severe instances of frost-bite, mortification and death. In arctic regions the fingers, toes, ears, and noses are sometimes frozen; but the experience of the inhabitants of such regions has guided them to the true treatment of such injuries-viz., to rub the injured parts with frozen water pounded, or with snow. In like manner experience has shown that the life of the plant, or the vitality of its reaves, may be preserved, if by shielding it from the rays of the sun, a sudden reaction is prevented. For this reason gardeners, before sunrise, take care to cover up the shrubs and crops they wish to protect when an early and unexpected frost has "bitten" them; for they say, "the sunshine will do more mischief than the frost."
132. The temperature of vegetation is above that of the atmosphere in winter, unless the plants are completely frozen, when their life is suspended in some cases, in others destroyed. But this supply of vegetable warmth is sufficient to resist cold to a greater extent than would be supposed; a covering of woollen or of matting being found, in practice, sufficient to preserve plants from injury by very long and severe frosts.
133. When, nevertheless, a succulent plant, the cells in whose stem and leaves are are filled with fluid sap, are so situated as to be fully under the influence of freezing air, a complete death of the plant ensues. I have before explained, that when water is cooled to within about ten degrees of the freezing point it ceases to contract, and that, unlike other substances, in passing from a fluid to
a solid state it expands considerably. The sap of the plant consists for the most part of water, confined in the passages and cells of the tissue in the leaves and stem; and this fluid, when frozen, expands and lacerates the vital organs so as totally to destroy the life of the plant. If the leaves are placed upon the hand, they will be found to be soft and pulpy, as if they had been boiled; so complete has been the destruction of the minute cells of which their tissue was composed.
134. Another phenomenon associated with the advent of frost, was long the theme of superstitious and ignorant wonder. The pedestrian who crosses a meadow in the middle of the day after a frosty night, will see, occasionally, the print of footsteps apparently burned into the sod. The grass may be two or three inches in height throughout the meadow, but where these mysterious footsteps have been, the herbage seems singed or seared close to the earth. Before people knew better, and while religion was more completely in the fetters of unreasoning superstition, good folks were wont to point to these footprints, as the physical proofs of the existence and personal wanderings of the impersonation of evil. But the "old wives' tale" fell a victim to the progress of science, which discovered how these mysterious foot-prints could at will be produced by the best of men, if they walked over frozen grass in the early morning, and proved that the supposed Satanic agency was quite unnecessary. The blades of the grass, being completely frozen, were as brittle as the ice which filled and expanded their cells, and consequently snapped off under the pressure of the foot. When the sun rose the greater part of the field was exposed very gradually to its rays, and the grass, therefore, suffered little in general ; but the broken blades were only the more completely withered and blackened, because they would be sheltered by the surrounding herbage till the sun was high in the sky and his beams of considerable power.
135. The year has now run its course, and the succession of the seasons has been accomplished. The earth has carried us through the immensity of space, completely round the great luminary on whose beams days and seasons depend, under the guidance of Him "who set the stars in the fir-
$\mathrm{m}_{\text {ament }}$, and guideth the wanderers of heaven."
136. EXPERIMENTS UPON THE PHENOMENA OF DECEMBER.-Upon a black garment catch the flakes of snow that fall in a snow-storm, and, if you have good sight, you will discover that these flakes consist of most beautiful crystalised forms, of which we give the following microscopic illustrations :-


The aid of the microscope will greatly enhance your perception of the beauties of these crystals.
137. Take a piece of glass, on a frosty day, and hold it over the steam of a teakettle. Drops of water will be condensed thereon. Lay the glass in the open-air, and the pure drops of water will become frozen into beautiful crystals. You will then see, in a few minutes, water in its three forms-vapour, liquid, and solid. Fill a phial with water, and cork it tightly. Place it in the frost, and when freezing it will break the bottle, showing that freezing water expands.
138. THINGS TO BE REMEMBERED IN DECEMBĖR.-Be charitable to the poor, and be just to your connections. Examine the state of your affairs, and prepare to improve your position by fresh energies. Take care of your health, not by reading
the puffs of "quackery," and swallowing quack nostrums, but by exercise in fine weather, and by warmth at home in foggy and damp days and nights. (See 82.)
139. REMARKABLE EVENTS IN PAST DECEMBERS.-Calendar of the Month:-

1. Dr. Warren died, 1835.
2. Flaxman died, 1826.
3. Richelieu died, 1642.
4. Galvanism discovered, 1790-Mozartd.1792.
5. Black died, 1799 .
6. Nicholas.-General Monk born, 160 .
7. Dr. Aikin died, 1822 .
8. Zimmerman born, 1728.
9. Scheele born, 1742.
10. Royal Academy of Arts instituted, 1768.
11. Grouse-shooting ends-Charles XII.killed, 1718.
12. Sir J. Brunel died, 1849.
13. Lucy.-Dr. S. Johnson died, 1784.
14. Washington died, 1799.
15. Brera born, 1772 .
16. Leopold, King of Belgium, born, 1790.
17. Sir H. Davy born, 1778.
18. Rubens born, 1577.
19. Tycho Brahe born, 1588.
20. Gray born, 1716 .
${ }^{21 .}$ St. Thomas.-Shortest day.
21. Pott died, 1788.
22. Sir R. Arkwright born, 1732.
23. Christmas Eve.
24. Christmas Day.
25. St. Stephen's.-Peyer born, 1653.
26. St. John. - Munro died, 1791.
27. Innocents.-Peter Bayle died, 1706.
28. John Wycliffe died, 1384.
29. R. Boyle died, 1691 .
30. St. Silvester.-Boerhaave born, 1669.

The Red Letter Days of the month are as follow:-

6th.-"St. Nicholas." He was Archbishop of Myra, in Greece, a.d. 302, and is regarded as the patron saint of children and mariners, and consequently churches built near to the sea are generally dedicated to this saint.

13th-" St. Lucia" was a young lady of Syracuse, who died in the year 304, and was remarkable for the devout and charitable life she led.

21st-"St. Thomas" is said to have travelled and promulgated Christianity among the Persians, Medes, Parthians, and Armenians, and that he met with his death by being stoned, and having darts thrown at him by the Brahmins, who were incensed at his preaching.

25th.-" Christmas Day." This is kept as a solemn festival by our Church.

26th.-"St. Stephen." This feast is held, according to Brady, " in consequence of St.

Stephen having been the first who suffered for his steady adherence to the faith of Christ, so that his anniversary has been fixed immediately following the day held by the Church in commemoration of the Nativity of our Saviour."
27th.-"St. John the Evangelist." This feast is observed in commemoration of this evangelist, because he drank poison without dying in consequence.
28th.-" Childermas," or "Holy Innocents' Day," is held in commemoration of the slaughter of the innocents by Herod, and is celebrated by the Church of Rome with masses. It is considered unlucky to begin any work upon this day.
31st.- "St. Silvester" was a pope, and is said to have been the author of several rites and ceremonies of the Romish Church, as unctions, palls, asylums, \&c. He died in 334.
140. MINCE PIES.-Rub and pick clean seven pounds of currants, and three pounds and a half of beef suet chopped fine, three pounds and a half of the lean of a sirloin of beef minced raw, three pounds and a half of apples chopped fine (which should be the lemon pippin), half a pound of citron cut in small pieces, half a pound of lemonpeel, half a pound of orange-peel, two pounds of fine moist sugar, one ounce of spice (such as cloves, mace, nutmegs, and cinnamon, pounded together, and sifted), the rine of four lemons, and four Seville oranges; rub all this together till well mixed, then put it into a deep pan ; mix one bottle of brandy, one of white wine, and the juice of the lemons and oranges that have been grated, together in a basin ; pour half over, and press it down tight with your hand, then add the other half, and let it remain at the top to soak in by degrees; cover up close. It should be made six weeks before wanted; the pans mast be sheeted with puff paste, and covered with the same. About ten minutes will bake them.
141. Mince Pies without Meat.-Six pounds of apples, pared, cored, and minced; of fresh suet, and raisins stoned, three pounds each ; to these add of mace and cinnamon, a quarter of an ounce each, and eight oloves powdered, three pounds of powdered sugar, three quarters of an ounce of salt, the rinds of four, and juice of two
lemons, half a pint of port, and the same of brandy. Mix well, and put into a deep pan. Have ready washed and dried four pounds of currants, and as you make the pies, add candied fruit.
142. Lemon Mince Pie.-Squeeze a lemon, boil the outside till tender enough to beat to a mash, add to it three apples chopped, four ounces of suet, half a pound of currants, four ounces of sugar ; put the juice of a lemon, and candied fruit, as for other pies. Make a short crust and fill the pattypans.
143. Hare Pie.-Cut a hare into pieces, season it with pepper, salt, nutmeg, and mace ; put it into a jug, with half a pound of butter, close it up, set it in a copper of boiling water, and make a forcemeat, with a quarter of a pound of scraped bacon, two onions, a glass of red wine, crumbs of bread, winter savory, the liver cut small, and nutmeg. Season high with pepper and salt; mix it well up with the yolks of three eggs, raise the pie, and lay the forcemeat in the bottom of the dish. Then put in the hare, with the gravy that came out of it; lay on the lid, and send it to the oven. An hour and a half will bake it.
144. STOMACH PLAISTER FOR COUGHS. - Take an ounce each of bees' wax, Burgundy pitch, and rosin; melt them together in a pipkin, and stir in three quarters of an ounce of common turpentine, and half an ounce of oil of mace. Spread it on a piece of sheep's leather, grate some nutmeg over, and apply it quite warm to the pit of the stomach.
145. SNOW PANCAKES AND PUD. DINGS.-It is not generally known that snow is a fine substitute for eggs in both puddings and pancakes. Two table-spoonfuls may be taken as the equivalent of an egg. Take it from a clean spot, and the sooner it is used, after being taken in doors the better. It is to be beaten in, just as the eggs would have been, and it should be handled as little as possible. As eggs are dear in the season of snow it is a help to economy to know the above.
146. TWELETH CAKES.-Make a cavity in the middle of six pounds of flour, set a sponge with a gill and a half of yeast and a little warm milk; put round it a pound of fresh butter in small lumps, a pound and a quarter of sugar sifted, four pounds and a
half of currants, half an ounce of sifted cinnamon, a quarter of an ounce of pounded cloves, mace, and nutmeg mixed, sliced candied orange, lemon-peel, and citron. When risen, mix all together with a little warm milk; hive the hoops well papered and buttered, fill and bake them. When nearly cold ice them over.
147. LINSEED TEA.-Take two teaspoonsful of linseed, liquorice root half an ounce, boiling water three pints, let these infuse some hours and strain. An ounce of colt's.foot leaves added makes a good pectoral infusion. These are both very good emollient mucilaginous drinks, and are taken as common beverages in complaints of the bladder, urinary passages, coughs, or any inflammatory complaint with advantage.
148. TO PREVENT RUST.-Mix with fat oil varnish four-fifths of well rectified spirits of turpentine. The varnish is to be applied by means of a sponge ; and, articles varnished in this manner, will retain their metallic brilliancy, and never contract any spots of rust. It may be applied to copper, and to the preservation of philosophical instruments, which, by being brought into contact with water are liable to lose their splendour, and become tarnished.
149. CURES FOR THE CRAMP. Bathe the parts afflicted every morning and evening with the powers of amber; and take inwardly at the same time, on going to bed at night, for eight or ten nights together, half a spoonful, in from a gill to half a pint of white wine. For sudden attacks of the cramp in the legs, relief may be instantly obtained by stretching out the limb affected, and elevating the heel as much as possible till the toes bend backward toward the shin; this also may be considered as an infallible remedy, when only in the leg.

I50. VARNISH FOR BASKETS.-Take either red,black, or white sealing wax, which ever colour you wish to make; to every two ounces of sealing wax add one ounce of spirit of wine, pound the wax fine, then sift it through a fine lawn sieve till you have made it extremely fine; put it into a large phial with spirits of wine, shake it, let it stand near the fire forty eight hours, shaking it often; then, with a little brush, rub your basket all over with it ; let them dry and do them over a second time.
151. TO PREVENT THE FREEZING OF WATER IN PIPES.-By tying up the ball-cock during the frost, the freezing of pipes will often be prevented; in fact, it will always be prevented where the main pipe is higher than the cistern, or other reservoir, and the pipe is laid in a regular inclination from one to the other, for then no water can remain in the pipe; or if the main is lower than the cistern, and the pipe regularly inclines, upon the supply ceasing, the pipe will immediately exhaust itself into the main. Where the water is in the pipe, if each cock is left a little dripping, this circulation of the water will frequently prevent the pipes from being
frozen.
152. SYMPATHETIC INK.-Take an ounce and a half of zaffre, which may be had at any colour-shop, and put it into a glass vessel with a narrow and long neck; pour over it an ounce measure of strong nitrous acid diluted with five times the quantity of water. Keep it in a warm, but not too hot place, for about ten or twelve hours, and then decant the clearest part of the liquor. Having so done, pour nearly as much more diluted nitrous acid on what remains, which must continue in the same situation, and for as long a time as before, and then be decanted and mixed with what was at first obtained by the first operation. This being done, dissolve in it two ounce of common salt, and the sympathetic ink is completed. Writing on common paper is legible only while the paper is hot; exposing it alternately to the air, and to the heat of the fire, whatever is written will appear or disappear at pleasure.
153. A CURE FOR CHILBLAINS.Take of ammoniac gum (the real drop) half an ounce; reduce it into a smooth pulp with as little water as possible; then add half an ounce of extract of hemlock, and three drachms of the strongest mercurial ointment; the whole to be well mixed together. When used it should be spread on soft leather and sewed on the feet, and need not be removed above once a week. For recent chilblains, and for their prevention, this plaister is infallible. The above quantity is sufficient for a family of three or four children for the winter if their feet are pro. perly attended to.
154. LIQUID BLACKING.-Mix a quarter of a pound of ivory black with a table-spoonful of sweet oil ; dissolve one penny-worth of copperas, and three tablespoonfuls of treacle, in a quart of vinegar; then add one pennyworth of vitriol, and mix the whole well together; it forms a good liquid blacking for boots or shoes.
155. TO CURE THE FOOT-ROT IN SHEEP.-Pare off, with a sharp knife, so as not to make the part bleed, all the spongy and decayed parts of the hoof and frog, and rub into the affected parts, every other day, a little of a mixture of equal quantities of powdered sulphate and acetate of copper, (blue vitriol and verdigris) mixed up with crab verjuice to the consistance of a pulp. The dis order will generally disappear in from two to four dressings, especially if the sheep be kept on dry and hard ground, or boards, so as not to rub or wash out the applications to the feet.
156. CARROTS, PARSNIPS, AND BEET ROOTS.-Must be kept in layers of dry sand for winter use; and neither they nor potatoes should be cleared from the earth. Potatoes should be carefully kept from frost.
157. SAUCE FOR WILD FOWLS.Simmer a tea-cup full of port wine, the same quantity of good gravy, a little shalot, pepper, salt, nutmeg, and mace, for ten minutes; put in a bit of butter and flour, give it all one boil, and pour it through the birds.
158. TO PRESERVE FISH.-Salmon and other kinds of fish are preserved by placing them in jars and pouring sweet salad-oil over them until covered, then bunging up quite air-tight.
159. VOLATILE LINIMENT.-Mix together equal portions of spirit of hartshorn and sweet oil.
160. OINTMENT FOR PILES.-Take of spermaceti ointment, one ounce ; extract of saturn, thirty drops; laudanum, two drachms. Mix.
161. FURNITURE OIL.-Alkanet root, one part; shell lac varnish four parts linseed oil, sixteen parts; turps, two parts; wax, two parts. Mix, and let them stand together for a week.
162. CURE FOR SPRAIN.-A large spoonful of honey and salt, and the white
of an egg; beat it up well, then let it stand an hour, and anoint the place sprained with the oil which will be produced, keeping the part well rolled with a bandage.
163. RHUBARB LOZENGES.-Powdered rhubarb, one ounce; powdered cassia, one ounce; sugar, one pound. Mix with mucilage.
164. TREATMENT OF BRUISES.Apply poultices, or dip flannels in hot water, wring out, and apply hot ; in extreme cases, or when near a joint, it may be necessary to apply leeches.
165. TO TAKE THE RUST OUT OF STEEL.-Cover with sweet oil well rubbed on it: in forty-eight hours use unslackened lime, powdered very fine. Rub it till the rust disappears.
166. DIAMOND CEMENT.-Take isinglass, soak it in water until it becomes soft, then disolve it in proof spirit, and add a little resin varnish. Used for joining china, glass, and also for fixing precious stones.
167. BLUE COPAL VARNISH.Indigo, Prussian blue, blue verditer, or ultramarine. All these substances must be powdered fine. Proceed as before.
168. TOOTHACHE.-Take half a grain of opium, and the same quantity of yellow snb-sulphate of quicksilver, formerly called turpeth mineral: make them into a pill, and place it in the hollow part of the tooth some time before bed time, with a small piece of wax over the top.
169. FINE PICTURE VARNISH.-Fine-picked mastic, twelve pounds; clean glass, coarsely pounded, five pounds ; colourless spirits of turpentine, five gallons. Put them into a suitable vessel, and agitate for four or five hours, repeat the same next day, then let it sottle for several months, and pour off the clear.
170. FROST-BITES.-Keep the part away from all heat, and rub with snow until warmth in some measure returns; then dry well, and rub with hot flannel.
171. BLEEDING AT THE NOSE.Holding the arms and hands at full length above the head will often stop it, or bathe the nostrils with cold water, or put a little bruised alum into water, or bathe with vinegar and water. To prevent a return, the bowels should be kept open.


THE ENGLISH OX
172. THE " BEEF OF OLD ENGLand," and How to Make the Most of it. Also an Account of the Editor's acquaintance with the Celebrated Cook, Mrs. Bodkin, and how the Editor Prevailed upon her to Write all her Experience in Cookfry for the " Corner Cupboard."The Editor of The Corner Cupboard has for some years enjoyed the acquaintance of the amiable Mrs. Bodkin, a lady who is well known to a large circle of friends as the best cook in London. That is, the best cook according to English taste-the cook par excellence for the people-who love wholesome, frugal, and satisfactory dishes-dishes giving to the teeth, and to the whole digestive system, a fair and healthful occupation, and not undermining the body, and cheating the appetite, by miserable innovations, $a ̀ l a$ Française, à l'Italienne, and à l'Espagnole. No. 2.
173. Well, the Editor of The Comer C'up. board has long enjoyed the acquaintance of Mrs. Bodkin-has often dined at her table, and listened with profound attention to her impromptu orations upon the qualities of meat, the economy of joints, and the relative merits of modes and systems of cookery.
174. Mrs. Bodkin's success as a cook is such, that she is said to have thorough command of the chances which Dr. Kitchener used to say preside over the history of every joint. The old doctor held that there were seven chances against even the most simple dish being presented to the mouth in absolute perfection. For instance, a leg of mutton:-
1st. The meat must be good.
2nd. It must have been kept a good time.
3rd. It must be roasted at a good fire.
4th. By a good cook.
5th. Who must be in a good temper.
6th. With all this felicitous combination you must have good luck, and

7 th. Good appetite: the meat and the mouths which are to eat it must be ready for action at the same moment.

Mrs. Bodkin has such command over the first six of these chances, that she invariably ensures the seventh. Her cookery is really so good, that it whets the appetite of every one who sits at her table.
175. The Editor therefore determined, if possible, to secure the services of Mrs. Bodkin for the Cookery Department of The Corner Cupboard, desiring that that department should be, as compared with cookery books generally, the best, the most complete, the most modern, and suited to the tastes and means of the largest classes of people. It is very true that there are many cookery books, cheap and dear, and many little magazines in which cookery forms a conspicuous feature. But with regard to Cookery Books that bear the names of Soyer or Francatelli, they are written up to a standard that is far too expensive, even for the middling classes; and, even if expense were of no importance, the dishes prescribed would, generally speaking, be unsuitable to the tastes and constitutions of the many. And as to the magazines that treat of cookery, their articles are got together from such a medley of sources-copied from old cookery books, adapted from American works, or altered from various authorities, to avoid the law of copyright-to such a degree, that they confuse those whom they are designed to assist; and, in too many instances, spoil the dishes they offer their instructions to improve. A friend of ours once asked us whether we thought Miss Acton's Cookery Book was a book which cooks might act on? Without endeavouring to prejudice Miss Acton's claims to popularity, we have determined that The Corner Cupboard shall supply the best, the most simple, the most complete, and the best arranged Cookery for the Middle and Industrious Classes.
176. In order to give our friends confidence in our promise and our plans, we must lay before them briefly our preliminary communications with Mrs. Bodkin upon the subject:-

## December 8, 1856.

Dear Mrs. Bodkin,
I enclose a copy of my little work, The Corner Cupboard, and I want you to enrich its
pages, by writing a series of articles upon family cookery, which, being penned by your own hand, shall be eminently practical, and suited to those large classes of persons who prefer good English dishes, served with refined taste, and with due regard to the ways and means of persons in moderate circumstances in life.
The excellent dishes which I have had the pleasure of partaking of at your own table, and the hearty commendations that were always pronounced thereon by your guests, convince me that if you will undertake this duty, you will confer a great privilege uponthe readers of The Corner Cupboard.

Believe me,
Dear Mrs. Bodkin, Your Friend,

The Editor.

## Reply.

My Dear Mr. Editor,
I have reccived your letter, and really don't known how to reply. I can't write. I very seldom take the pen in hand-and to think of writing a cookery book, quite frightens me. It is a work in which I should take a great deal of pleasure, if I could write so as to explain myself. But there are so many things to describe and make plain to people, that I am afraid I should fail. The undertaking seems to me so large that I fear I must decline it ; but I will think the matter over.

Yours truly,
Mary Bodein.
December 10, 1856.

## Editor's Second Letter.

December 11, 1856.

## Dear Mrs. Bodkin,

I am so anxious to encourage you to undertake the cookery department of my Corner Cupboard, that I must beg you to comply with my request. And, to encourage you to do so, let me remind you that you once wrote for a work that I edited some years ago, various receipts at my request, and those receipts were so good, that the work in which they appeared increased very much in sale, and numerous correspondents wrote testifying their approbation of them,
The idea of writing a cookery book probably alarms you. But if you can write a receipt for your excellent "Winter White Bait"" for "Oxford Hare," and your "Lark Pudding," which are the best I have ever eaten, for your excellent soups, and capital patties, pies, and stews - if you can write receipts separately, as I have already shown you have done-you have only to keep on writing until you have written all that you know; then, if you put them altogether, you will find that you have accomplished the very thing that alarmed you at first, namely, written a cookery book, and a capital one I have no doubt it will be.

Further to encourage you, I will state that for the work I have already alluded to, I once engaged a practical gardener to write a series of gardening papers, and I can assure you that, although the stiffness and eccentricity of his composition freamatly made the readers of my
work laugh heartily, his instructions were so plain and practical, went so directly to the work to be done, and so clearly pointed out the way to do it, that his gardening papers are now deemed above all price by amateur gardeners.
I intend all the departments of The Corner Cupboard to be written in this manner, by practical hands ; and my old gardening editor is again about to undertake his department.
I am quite sure that my readers, "the Cupboardonians,", as I begin to call them, will appreciate your sensible and practicable instructions far before the literary hashes displayed in the "Cookery Bookery" of the present day.
If this were a matter of popular election, I would placard the whole kingdom with "BoDKIN POR COOK," and I am sure if the lovers of good fare knew your works as I do, you would be elected unanimously at every dinnertable in England.

Yours very faithfully,
Thi Editor.

## Reply.

## Dbar Mr. Editor,

I have made up my mind to try my best, but you must help me in putting matters right for the press. The plan I think I shall commence, is one which I dou't remember to have seen before. It is to take Beef, say, and show all that can be done with every joint-how it can be served, hot, cold, stewed, hashed, broiled, fried, minced, and so on. Take every part of the animal, iuside and outside, and show what can be done with it. So that if a person has any particular joint, they may know everything that can be done with it-what is the best way to cook it at first, and what meals and relishes can be got out of it afterwards. I believe, Mr. Editor, that one-half of our food is wasted by bad management, and, therefore, the very first receipt I shall give will be for the Stock-pot. You know I was always a great advocate for that.
About the drawings, to show how things are, you will have to come and help me, for that is impossible for me to do. I've been trying, already, to draw a rump of beef, and, do all I can, I can't help making it like a Scotchman's cap-I enclose it for you to see.
Please to call, and we will try to make plans for doing the cookery as cookery ought to be done.

## Yours sincerely,

Mary Bodinin.
December 13, 1856.
It is only necessary to add that we called, and made all the necessary arrangements. And that we have promised to pay every attention to the literary arrangement of Mary Bodkin's cookery. The opening paper scarcely does justice to ber talent, as she is nervous, and could scarcely turn a pancake now, were she to try. But she will get confident in a little while, especially after she has seen her first paper in print; and we are quite sure "the Cupboardonians" will be delighted.
177. THE STOCK POT.-No house, however small it may be, should be without a Stock
 Pot, it is the "save all" of an establishment. There is nothing in the shape of meat, that is sweet and wholesome, that may not go into the stock pot. For the benefit of the stock pot, you should not allow any one to pick a bone. If you send a joint of cold meat into the kitchen for the servants' dinner, never allow them to pick the bone, for the stock pot requires it, and will extract abundant nourishment from it. In trimming a joint of cold meat for the table, put the trimmings into the stock pot. Egg-shells should go into the stock pot; they tend to clear the stock. Hard crusts of dry bread may be put in ; they gather the scam, whick should be taken off three or four times in the day. Ham, beef, veal, mutton, lamb, pork, bits of poultry, game, in fact, the bones or remains of any kind of meats should go into the stock pot. Cold carrots and parsnips, or the remains of onion-sauce or gravy, the outside stems of celery, thoroughly cleaned and cut up, should go into the stock pot. In this you have the ground-work of almost all kinds of gravies and soups.

The stock pot should be made according to the engraving. The tap not being quite at the bottom allows room for the sediment, and thus you can draw the stock off perfectly clear; it should be drawn off and thoroughly cleared out every twenty-four hours, when the bones, \&cc., should go into the pig-tub. Then fill up again with what you have saved for it in the preceding twenty-four hours, and so on from day to day, thus saving in the course of a year, something enormous
[This is the first little sermon upon economy preached by Mrs. Bodkin. And there is really an amount of good sense in $1 t$, which we cannot help commenting upon. Bones contain a great amount of nourishment in the form of marrow, gelatine, and oil or fat, besides phosphate of lime, and a cartilaginous substance which is wrapped around them. These substances are all essential to health, in just those proportions in which the stock pot would extract and hold them in solution. Bones in their natural state, are very heavy, but when all the nourishment has been extracted from them they are as light almost as corks.]
178. THE JOINTS OF BEEF, THEIR NAMES AND SITUATIONS.-Very few cookery books are right upon this point. It is true that the ways of cutting up the carcass differ iui some parts of the kingdom; but Mrs. Bodkin, having consulted with her butcher in Newgate-market, is able to offer the following as the most general :-


A-The Ieg.
$B$-The Buttock, or Round.
$C$-The Aitchbone.
$D$-The Rump.
$E$-The Thick Flank.
$F F F$-The Sirloin. (Three cuts, each called Sirloin. The middle is the best.)
$G$-The Thin Flank.
$H$-The Wing, or Fore ribs.
$I$-The Middle-ribs.
$J$-The Chuck-ribs.
$K$-The Brisket.
L-The Chuck and Leg of Mutton Piece.
$M$-The Shin. $N$-The Clod.
O-The Sticking-piece, or Neek.
179. OX-TAIL SOUP.-(An Instancle of the Utility of the Stock-pot). Cut six large onions in slices; put them into a stew-pan, with half-a-pound of beefdripping ; brown them over the fire. Then add two carrots, sliced thin, a bunch of savoury herbs, a small quantity of allspice and whole pepper, slightly bruised; stew them together about an hour. Put half-apound of flour in the oven to dry, and take care that it does not burn; add this, with one quart of stock, to the herbs, \&c., and stir well together. Then have two gallons of stock boiling in another pot, into which put the herbs, thickener, \&c., and boil well for an hour ; strain it through a sieve, put in the ox-tails, and serve. The ox-tails should be allowed to simmer in water three hours, previously to putting them in the soup. Put the bones in the Stock-pot.
180. A FEW MORE WORDS ABOUT THE SIRLOIN OF BEEF.-(See 117.)The time required to roast a joint of beef depends more on the weather, heat of the fire, and thickness of the joint, than of the weight. Ten minutes to the pound has been found to be quite sufficient to roast a Sirloin, which should be put down to a good, brisk, and clear coal fire. The old-fashioned system of dangling, with a skein of worsted, is far the easiest and best plan of suspending a joint to roast before the fire. Do not baste it too much, as it tends to sodden the meat, and will almost entirely spoil the dripping. To preserve the fat, place a sheet of clean paper round the joint. Ten minutes before serving, take the paper off, and dredge the joint with a little flour and salt mixed, previously melting a little butter in the basting-ladle, and pouring it over the joint. Then serve, with about half a pint of boiling water poured over it, and garnished with horseradish.
181. COLD FILLET, FRIED IN SLICES.-The fillet, or undercut of the sirloin, if not eaten, can be taken out and cut in slices, not too thin, cross-way of the grain. Fry them in butter, over a brisk fire, until nicely browned. Then serve with a rich gravy, which may be made by taking a ladleful of stock; slightly thicken with flour ; add to which a small piece of butter, and a table-spoonful of mushroom catsip.
182. A ROAST RUMP OF BEEF.This joint should be roasted, and served pre-
eisely the same as the sirloin. It can also be stewed the same, with the exception that it will take more time to cook, in consequence of its being thicker and more solid.
183. THE SIRLOIN STEWED.-Tie it up lightly with tape; place it in a stewpan, and partly cover it with stock gravy; add three large onions, a bunch of savoury herbs, and stew it gently four hours. Dry it before the fire ; then brush it over with colouring; and serve it with a rich gravy (See Fillet of Beef, 181) and stewed onions.
184. TO STEW THE ONIONS.-Peel twelve large onions, and fry them in boiling lard until they are perfectly brown; then stew them for an hour in stock gravy, and serve round the beef. The remains of the stewed beef may be cut into slices and hashed in the gravy that is left, garnishing with stewed onions. Put the bones in the tock-pot.
185. SLICES OF COLD RUMP FRIED. -Slices from this joint, when cold, may be fried, with a little butter in the pan, until nicely hot through; then serve round some boiled or steamed potatoes, with a white sauce.
186. WHITE SAUCE is made thus:One pint of milk boiled in a saucepan ; add a little flour to thicken it, a piece of butter, and a table-spconful of mushroom catsup, poured over the whole of it. The Rump of Beef is the part from whence the finest steaks are cut.
187. ROAST RIBS OF BEEF-COLD, FRIED, OR HASHED.-This is the finest joint in the whole ox, and may be roasted (See Sirloin, 180); or, when cold, may be fried (See Rump of Beef, 182), or hashed thus:-Put a quart of stock gravy into a stewpan, to which add one onion, half a turnip, and half a carrot, cut up small. Boil half-an-hour. Mix a little flour in a basin with water, for thickening; pué three table-spoonfuls in, well stirring it to keep it from burning; add three table-spoonfuls of mushroom catsup, or Harvey's sauce; then season with two ounces of salt and one ounce of pepper to taste. Let it all well boil for ten minutes; then put in the meat, which must be cut into thin slices, and dredged with flour. After the meat is in, it should not be allowed to boil, or it will make the meat eat hard.

After gently simmering for about ten minutes, serve in a hash-dish. Make a round of toast, cut it into triangular pieces, and place it round the dish. Some people who are fond of sharp sauces, put a little mixed pickles in, cut into square pieces.
188. ROAST FIBS OF BEEF BONED AND ROLLED.-These are generally the chuck-ribs. The jones are taken out by the butcher, and the meat is rolled round and skewered up. It may be dressed the same as the Ribs of Beef, 187.


CHUCK-RIBS OF BEEF BONED AND ROLLED.
189. TO CARVE THE CHUCK-RIBS OF BEEF, BONED AND ROLLED. This joint is very nice to stand cold for breakfast or supper. If the outside cat is preferred by any one, cut it thin off the top of the joint; if it is not required, cut a thick slice off. By so doing, you come to the underdone at once ; and as most people like roast beef with the gravy in it, you will thereby be enabled to give satisfaction to the persons whom you are carving for, which is the great secret in good carving. Cut the slices thin, and do not give too much gravy, unless asked for. Be sure to put the guard up on your fork; or, if your knife slips, you will, in all probability, cut your fingers. Do not help too much at a time, as it is easy for the persons whom you are carving for to send their plates again. You will find by doing this, that there will not be so much left on the plates to waste.
190. THE SALT AITCHBONE OF BEEF BOILED-COLD, AND AS BUBBLE AND SQUEAK.-It should be placed in cold water, and allowed to boil gently, allowing a quarter-of-an-hour to the pound. The pot should be skimmed three or four times. Serve with half-a-pint of the liquor it was boiled in over it, and garnished with carrots. When cold, slices can be cut from it, and fried in butter until quite hot. Then
chop up any cold vegetables you may have, and fry them together in the same pan, and serve in the centre of the dish. This is called Bubble and Squeak. Put the Bones in the Stock-pot. To dress a fresh Aitchbone of Beef, see Sirloin, 180, and Ribs, 187.


AITCHBONE OF BEEF.
191. TO CARVE THE AITCHBONE OF BEEF.-This, probably, is the easiest joint to carve in the whole ox. It is necessary, in the first place, to take a slice from A to B , at least half-an-inch thick. If properly cooked, the gravy will be found to runt rom the part that is cut; then cut the slices rather thin. Fat will be found to the right of $A$, and the soft fat on the other side of the joint. If it is required welldressed, it will be found at C, by turning the joint over.
192. A THIN FLANK OF BEEFSALT OR FRESH.-It is generally salted in red brine, and is called Corn Beef. It should be boiled twenty minutes to the pound, and sent to table. (See Aitchbone, 190.) If intended to stand cold, take the bones out and press it, by putting it on a dish and placing a piece of board over it. Put a half-hundred weight on the board, a large stone, or anything that is heavy will do as well; allow the weights to be on all night. In the morning take them off, put the beef on a clean dish, cutting a thick slice off one end of it, and set it on the breakfast table, garnished with three or four nice bunches of parsley. When fresh, the thin flank may be dressed. (See Sirloin, 180 ; and Ribs, 187.)
193. THE SILVER SIDE OF THE BUTTOCK, OR ROUND-FRESH OR SALT.-The silver side is far the best part of the buttock, being closer in the grain and more tender. To dress it salt, see Aitchbone, 190; do. fresh, see Sirloin, 180, and Ribs, 187.
194. THE MOUSE BUTTOCK -
FRESH OR SALT.-This is generally a very dry and hard piece of meat. It is the inside part of the buttock, or round. To dress it salt, see Aitchbone, 190 ; ditto fresh, see Sirloin, 180, and Ribs, 187.
195. THE BRISKET - FRESH OR SALT.-This is by some considered the best part of the ox to boil or stew, but butchers and experienced cooks say that it is harder and requires more dressing than any other joint. If salted, it may be boiled, see Aitchbone, 190 ; if fresh, stewed, see Sirloin, 180; or, if hashed, see Ribs, I87.
196. WINTER WHITEBAIT. - You should get your fishmonger to pick you out some of the largest and soundest sprats. Shake them in flour to remove the scales, then egg them over with a brush, shake them in equal quantities of flour and bread crumbs, and fry them in boiling fat (See Cod Fish, 198) for three minutes. Serve them on a napkin, perfectly plain. Brown bread and butter, and a lemon cut into wedges, should be placed on table with them; added to which, a little cayenne pepper and salt is all that should be taken as sauce to them.
[This is the dish alluded to in our correspondence with Mrs. Bodkin. We recommend our readers to try it. Sprats are in season all our
winter, and winter, and are best in frosty weather.]
197. COD FISH - BOILED OR FRIED.-This fish is best when two days old, as it eats more tender and cuts more firmly than if only just killed. To boil, it should be placed in sufficient warm water to cover it, and will take from three-quarters-of-an-hour to one hour's gentle simmering, according to the size; the liver should be boiled with it. Serve on a napkin, the liver laid on one side of the fish, and oyster sauce in a tureen. Garnish with horseradish nicely scraped, a slice or two of lemon, and a little parsley.
198. TO FRY the tail part of the fish, it should be cut into slices right through the fish, about three-quarters of an inch thick, well dried in a clean cloth, and rolled in flour; beat an egg up in a bason, and brush the fish'over with it; rub some crumbs of bread through a wire-sieve, and cover the fish over with them ; then get the fat to boil. The frying-pan should be at least three inches deep, and there should be
two inches of fat in it, enough to cover the fish. When the fat boils, which you may ascertain by sprinkling two or three drops of water into it, when, if it splutters and spits out, it boils. Beef and mutton dripping makes the best fat to fry fish in. Then put your fish in, having shaken the loose bread crumbs off. When done it will float. Serve on a napkin, and garnish the same as Boiled Cod Fish, 197.
199. OYSTER SAUCE.-Take a dozen oysters ; blanch them, by putting them in cold water, and boiling them for ten minutes. Make a nice melted butter, thus:-Take a pint of milk, let it boil; add a little flour for thickening; put in two ounces of butter, well-stirring it to keep it from burning. Then put in the oysters, with a pinch of cayenne pepper, a little salt, and a tablespoonfull of mushroom catsup.
200. BOILED SHOULDER OF MUT-TON.-Put into cold water a shoulder of mutton, and boil it a quarter-of-an-hour to the pound. Then dish, smothering it completely in Onion Sauce, made thus:-Peel six large onions, and boil them in water till they are perfectly tender; take them out, and chop them up, not too fine; then put them in a saucepan with a pint of milk, two ounces of butter, and let them boil gently ; add a little flour to thicken it, and a little pepper and salt. Serve over the mutton.
201. PIGEON PIE.-Make a good puff paste, thus: - Take three-quarters-of-a pound of flour, and a quarter-of-a-pound of butter. Rub as much butter into the flour as possible, without its feeling at all greasy ; it must be rubbed in quite fine. Add sufficient water to make it into a paste, roll it out, stick bits of butter all over it, flour it, fold it up, the butter inside, and roll it out again. This should be done three times. Then take three pigeons, season them well inside and out, with two of salt to one of pepper: one pound of rump steak, cut into thin slices and seasoned the same as the pigeons. Place the steak at the bottom of the dish, the pigeons on the steaks; then on the pigeons two eggs boiled hard, cut into slices not too thin. Then wet the rim of the pie-dish with a little water, and put a thin layer of paste round the rim you have just wetted. After this, place a covering of paste over all; trim the paste round the
edge of the dish with a knife, and score the edge of the paste lightly with an iron skewer ; cut some ornaments out with tinshapes, lay them on lightly, and then brush the yoke of an egg over the paste. Two or three of the pigeon's feet should be stuck in the centre of the pie.
202. LARK PUDDING.-Make a paste of half-a-pound of suet and one pound of flour. Roll it out, and line the dish with it. Then take one pound of rump steak, three sheeps kidneys, one dozen larks, nicely picked and drawn, and all wellseasoned with two of salt and one of pepper, and one dozen oysters blanched. Cut the steaks thin, and place them at the bottom of the dish, then the kidneys in a like manner, the larks on the top, with an oyster in each. It should be boiled four hours.
203. POTATOES. -To cook this vegetable, the steamer should be perfectly clean. They should be pared very thin, the eyes picked out, and you should endeavour to cook all the small-sized ones on one day, and the larger ones on the next; otherwise, the smaller ones will be done to atoms, and the larger ones quite hard. Do not put too many on a dish. If good potatoes, and cooked according to this recipe, they will resemble balls of flour. (For Twenty Methods of Cooking Potatoes, See Enquire Within, 122.)
204. BRUSSELL'S SPROUTS.-Wash perfectly clean; put them in boiling water, with a little salt, and let them boil gently for half-an-hour. Then strain them through a cullender. Set the cullender over the saucepan, and cover it over with a cloth; the stean will keep them hot, and they will drain perfectly dry. Serve in a vegetable. dish.
205. YORKSHIRE PUDDING.-Well beat three eggs, then add a pint of milk, and make it into a smooth batter with half-a-pound of flour. The tin which is to receive the pudding must have been placed, for some time previously, under the joint that has been put down to roast. One of beef is usually preferred. Watch it carefully that it may not burn, and let the edges have an equal share of the fire. When the pudding is quite firm in every part, and well-coloured on the surface, turn it to brown. Serve it on a drainer, cut into square pieces.
206. SUET PUDDING.-To a pound of flour add half-a-pound of finely-chopped suet, half-a-teaspoonfull of salt. Mix these in a small paste with a well-beaten egg and a little milk, and boil it two hours, first tying it tightly in a cloth.
207. ROLL PUDDING.-Roll out thin a bit of puff paste, or a good suet crust, and spread equally over it, within an inch of the edge, any kind of fruit, viz., jam, orange marmalade, and mincemeat. Make excellent varieties of this pudding. Roll it up, carefully pinch the paste together at the ends, and boil it two hours.
208. SWEET SAUCE, OR DIP FOR PUDDINGS.-Take a little melted butter. made thus:- Half-a-pint of water in a saucepan; let it boil; add a little flour to thicken it, and an ounce of butter, a wineglassful of brandy or sherry, and sweetened to taste with lump sugar. Serve in a tureen or butter-boat.
209. TO FRY ONIONS. - Take two large onions, cut them in rings, and fry them quickly in butter until perfectly brown. Serve them round the steak.
210. COLOURING FOR SAUCES.Put two ounces of butter and a quarter-ofa pound of moist sugar in an earthern pipkin on the fire. Keep it stirring all the time while the sugar is dissolving, that is, while the froth rises; hold it a little way from the fire when it is brown; put in a little port wine (two table-spoonfulls), stir it well together, and let it boil gently for an hour; pour it into a bason, when cold take off the scum, and bottle for use.
211. THINGS IN SEASON IN JANUARY. - Meat. - Beef, Pork, Mutton, Veal, Lamb's-head, and Ham.

Poultry and Game.-Hares, Pheasants, Partridges, Woodcocks, Snipes, Turkeys, Capons, Fowls, Tame Figeons, and Rabbits.

Vegetables.-Potatoes, Cabbages, Sa voys, Sprouts, Brocoli, Spinach, Parsnips, Carrots, Turnips, Celery, Endive, Leeks, and Onions.

Fisi. - Cod, Soles, Turbot, Skates, Whitings, Smelts, Eels, Perch, Plaice, Flounders, Mulletts, Haddocks, and Sprats.

## 212.

## TO THE " CUPBOARDONIANS."

The winds their plaint are sighing, Around the Old Year dying,
And the dead leaves thickly lying, Form a pillow and a bier!
Hark, how the winds are trembling,
The moans of grief resembling
Of kiridred, when assembling
To weep when Death is near !
The snow enwraps the mountain, And buries all the vale;
The frost has bound the fountain And the skies wept tears of hail For the Old Year is dying,
The winds their plaint are sighing, And the dead leaves thickly lying,
Form a pillow and a bier! Form a pillow and a bier!
The holly with its berries red is hanging by the
wall;
[the hall.
[the hall. The mistletoe, with pearly eyes, is pendant in The yule log crackles on the hearth, and lights and shadows fly, [sky.
Like the passing of the meteors across a summer.
In merry groups the old and young their festive games pursue;
The hazel eyes are, beautiful, bewitching are the
The silver hairs of honoured age are charming to the sight,
And the auburn locks of childhood, like an autumn's evening light.
[dance;
The younger ones are treading the mazes of the
They twine their arms, and like a throng of fairy forms advance:
Oh, happy is the Christmas time, when hearts their loves unfold,
And cherish thoughts more precious far than silver or than gold.
The Old Year is dead, but a New Year is born; The Old One closed his eyes at night, the Young One woke at morn:
The Old One taketh with him to the shadows of the dead
The passions and the follies that to many griefs have led.
Let us forgive our brethren, and hope to be forgiven-
Flowers that have sprang with weeds have never rightly thriven;
And there are weeds that round the heart their biting tendrils twine,
And san it of its virtues, and make it droop and pine.
Away with all such weeds from the garden of the heart;
Let the New Year be our witness that we play a better part:
Let Sisters' arms round Brothers' necks most lovingly entwine,
And Children to their Parents now more willingly incline:
Let Neighbours be to Neighbours more generous and just,
And all mankind look up and strive in Heaven to put their trust.
Then shall the New Year be to all a happy jear
indeed indeed,
And man from many sorrows and from many
tears be freed

## 213. THE MAN WHOM NOBODY COULD BENEFIT, AND THE MAN WHOM NOBODY COULD INJURE.

## THE PREFACE.

The following story, although of the fabulous class, is one admirably adapted for perusal at this season of the year, and to young people especially, it is calculated to impart a most impressive lesson.

In Queen's county, Long Island, a body of water called "Success Pond," has long attracted the attention of the curious, by reason that one part of it seems unfathomable. The late Dr. Samuel L. Mitchell, of New York, of learned memory, made many fruitless efforts to reach the bottom; and that his labours therein might not be wholly barren of interest to posterity, he stocked the pond with perch, which are now become so numerous that between the pleasure of fishing for them, viewing the surrounding picturesque scenery, and searching for the unfathomable part of the pond, the place, under the name of "Lakeville," has become quite a fashionable resort, and good hotels accommodate the many visitors. The narrative is a part of the established amusement of the place, and is preserved at the best hotel in the front pages of a book in which visitors write their names.

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## the story.

In this pond, many years ago, a boy was fishing immediately over the unfathomable spot, as is conjectured; and of a sudden he felt that something uncommon was nibbling at his bait ; and on jerking the line, he became assured that he had hooked a large prize. He pulled cautiously, but experienced much difficulty in raising his line; and when he succeeded, he was astonished at finding attached to his hook not a fish, but a young lady of surpassing beauty. The hook had caught her by the under lip, and while she moaned piteously, she said, "Harry, Harry, ent the line, and permit me to descend, for I am not mortal but a Naiad, who reside in the deepest recesses of the pond."

The boy possessed a turn for traffic, and he was determined to drag her ashore and exhibit her for money, as he had lately seen a live seal exhibited; which was nothing near as curious. The Naiad, how-
ever, became angry when she found that her tears and entreaties were disregarded; and catching the line with one of her hands she snapped it asunder with ease ; and as she was plunging to the bottom of the pond, she exclaimed, angrily, "You fool, since you will not benefit those whom Providence places within your influence, no man shall be able to benefit you."

The boy was not a little mortified at the result of the adventure, and particularly at the escape of so curious an animal ; but as he never expected to need benefits from other people, he cared nothing for the malediction ; and gathering up his fishing tackle, he departed towards home, reporting everywhere as he went the curious adventure he had experienced, though he omitted the colloquy, as he suspected it would not redound to his credit.

The narrative was not long in spreading over the surrounding neighbourhood, and another iad thought he would try his success in this strange fishing; but he kept his intention secret lest he should expose himself to ridicule for believing so improbable a tale. He accordingly resorted to the pond very early one morning with a fish-line sufficiently strong for the kind of fish that he was seeking, and casting his hook into the unfathomable hole, awaited the result with more patience than faith; but he soon found that his bait was assailed, and on jerking up his line, dragged, with much difficulty to the surface, the beautiful being the other boy had hooked. She began to moan as she had moaned previously, and said entreatingly, " Richard, Richard, cut the line and permit me to descend." At the sight of her distress his resolution for capturing her forsook him, and he took from his pocket a knife to comply with her request; but she no sooner discovered his intention, than she raised her hand to her rosy mouth, and with ease extricated herself from the hook, and with the sweetest smile that can be conceived, plunged below the surface of the pond, but not before she had exclaimed, " Dear youth, since you are unwilling to injure the unfortunate, no man shall be able to injure you!"

Richard was rather pleased with his adventure, though he had failed in the object for which he had left home, and he returned thither with a quiet conscience and a good
appetite for breakfast. The result of this experiment he intended to communicate to Harry, but he found Harry's father, who was a man in easy pecuniary circumstances, had sent his son that morning to a board-ing-school kept by Mr. Halsey, in Eliza-beth-town, New Jersey, as he was determined to give his son a good literary education. Mr. Halsey was one of the most thorough disciplinarians that our country ever possessed, but was exceedingly kind; and he took every new scholar into an orchard full of choice fruit, of which the boy was permitted to eat his fill. Our young gentleman began, accordingly, to eat with a good relish; and recollecting what the Naiad had threatened, he laughed and wondered whether Mr. Halsey was not benefitting him. His mirth invigorated his appetite, and he ate and laughed again; and kept eating and laughing, swallowing cherry stones with his cherries in his eagerness to eat fast and much, till the cherries began to lose their good flavour. He, however, kept eating in consideration of their former flavour, till they began to taste bitter, and he could endure them no longer. Descending from the tree, he walked slowly towards the school, but he soon felt an ugly pain, with some nausea; and eventually became so much disordered with the quantity he had eaten of cherries and cherry-stones, that he discovered, to his disappointment and sorrow, that Mr. Halsey had not benefitted him by the indulgence he had granted.

After several days and nights of severe pain, he recovered sufficiently to commence his studies, but he found them difficult and tedious. Why English people should trouble themselves to learn Latin and Greek seemed an enigma that ought to be solved before a young man should be required to study them; and in his endeavours to solve this perplexing question, he employed much of the time that ought to have been devoted to acquiring his lessons. Fortunately, however, he enjoyed a room mate, by the name of Broughton, who kindly undertook, in consideration of a large share of Harry's pocket money, to make his translations, cypher all his sums in arithmetic, and enable him to appear like a thriving scholar, without any of the privations that must attend the acquisition of learning. He now
laughed again, when he thought of the Naiad, and he wondered whether Broughton was not benefitting him in saving him from the irksomeness of study.

Four years were passed in the above manner, and Harry had become old enough to enter college; but, behold! when he presented himself at Yale, he was found on examination to be so deficient in the required preparatory studies, that he was rejected. His father was as much grieved as surprised, and he would fain have induced his son to return to school and obtain the required proficiency; but the young man thought this would expose him to ridicule, and he could be neither threatened nor coaxed into the measure. His father seeing him thus resolved, at length said, "My son, I have given you the best opportunities that money can procure for acquiring a literary education; but since you refuse to be thrus benefitted, I must abandon the hope of seeing you become a professional man, and you must take your chance in some less intellectual employment."

The son felt a secret mortification at the result, but as he should thereby escape the confinement of a college, he was more pleased than sorry; and concluded that he would become a merchant. This would be less sedentary than the law, for the profession of which hisfather had designed him; and it would enable him to acquire a fortune in a less time; a consideration of no little importance to a gentleman who is not fond of labour. He resolved, however, to become rich, and perhaps as rich as Girard, though he did not approve entirely of Girard College. Some more personal gratifications would, he thought, be an improved disposition of his fortune ; and the gratification might be so regulated as not essentially to impair the residuary estate.

These preliminaries being thus settled, his father procured him a situation in a large importing house on Long-Wharf, in Boston; the owner of which assured the father, that if the son merited patronage, he should be promoted by every means in the merchant's power, and every care should be taken to give the young man a thorough mercantile education. Harry was a handsome youth, with no obvious defect but a superabundance of whiskers, for by some natural connection, whiskers seemed to ex-
uberate in proportion to the barrenness of the intellect. The merchant was, however, no philosopher, and never speculated deeply on abstruseconnexions, and, therefore, placed the young man in the counting-house to copy invoices and letters, carry money to the bank, bring packages from the postoffice, and to perform the various other small duties that pertain to the minor department of a great commercial establishment. Unfortunately these duties were not suited to the taste of the young gentleman, being far too unimportant; and he performed them in a way which evinced his opinion of their unimportance. In copying a letter he would omit some words and misspell others; and write the whole in so crooked, unintelligible, and blotted a manner, that his employer, disgusted with his carelessness, cismissed him from the count-ing-house, after telling him that he had sincerely desired to benefit him, but he found that he could not.
The information not only surprised the young man but offended him, for he felt confident that he could have performed well the higher duties of a merchant, though he had failed in performing the small duties. "This time, at least," thought he, "I an more sinned against than sinning ;" and without waiting to announce the misadventure to his father, he packed up his clothes and went home, as a man who had been unjustly persecuted. The father, however, took a less partial view of the matter, and even ventured to hint that only those "who proved themselves faithful in a few things are ever made lord over many things." But as expostulations could not reinstate the young man, the father, as a last resort, purchased a farm for him, and bade him try to gain a living by agriculture.

This expedient harmonised well with the son's taste, for he was fond of hunting, riding, and fishing, and he thought farming would abundantly coincide with theseamusements. He accordingly took with him into the country plenty of gunpowder, shot, and fishing-tackle; not, however, neglecting due quantities of seeds for the cultivation of his land. "Business first, and then pleasure," said the father, and so thought the son, who resolved that the present attempt to benefit him should not be thwarted by mismanagement. He was sedulous in ascertaining the
latest improvements that had been made ir agricultural implements, and in supplying himself abundantly with the most approved patterns, but in his haste to commence his new business, he could not waste time in learning the art of cultivation; the simplicity of the processes rendering any previous study unnecessary. Still the simplicity of the art, and the excellence of the farming utensils, proved to be not quite sufficient to supply the absence of experience; and he sowed wheat where he ought to have sown oats, planted corn where he ought to have planted potatoes, and was engaged in fishing and fowling when he ought to have been hoeing and harvesting. None of his crops vielded well, and what grew was injured by bad husbandry; till at the end of three years he was keavily in debt, and the value of his farm was insufficient to discharge his liabilities.

His father, also, was no longer able to assist him. Repeated disappointments in the hopes which he had formed of his son, had preyed upon his spirits, and impaired his health. He was old, and had become feeble; while large pecuniary engagements into which a friend had betrayed him, nearly exhausted his property. In this condition of body, mind, and estate, he ascertained the result of the farming project of his son, who had returned home to obtain some assistance. He felt that death was busy with him, and calling his son to a last interview, he said (with bluntness that usually characterises a death-bed interview): My son, I am no longer able tominister to your extravagance, and no longer willing to keep blind to your folly. Your miscarriages have not proceeded from the malediction of any Naiad, as you vainly insist, but from your own mismanagement. You have never tried to benefit yourself. You have always relied on me and other people for benefits; but be assured that the man who will not benefit himself, no person can benefit."

While Harry was thus realising the Naiad's prediction, Richard, to whom the opposite prediction had been uttered, had also been sent to Mr. Halsey's school; for though his father was poor, he copied the conduct of his rich neighbour in the education of his son. The schoolmaster had discontinued the practice of taking new comers into the orchard, for he had found
that they rarely possessed discretion enough to restrain their appetites within the bounds of health. The boys of the school were, however, not willing that a new scholar should escape the usual initiatory surfeit, which, from its frequent recurrence, they had brought themselves to witness as a good practical joke. They accordingly invited Richard to accompany them into the orchard on the first afternoon of his arrival at Elizabethtown ; and taking him to one of the most fruitful trees they told him that the custom of the school permitted him to eat as many cherries as he could swallow. He liked cherries well, and ate as many as he thought wholesome; and then descended from the tree gratified and refreshed.

The boys began to laugh when they saw him descend, and expected that he had, of course, made himself sick; but when the dinner-bell rang, he was able to take his seat, and relish the boiled beef and potatoes as well as any of his companions. They watched him with no little surprise, and began to dislike him, since he had falsified their expectations; and they unanimously resolved that nobody should assist him in learning his lessons, nor should any one prompt him at recitations. He accordingly was compelled to depend entirely on his own industry, and to acquire all his lessons thoroughly ; especially as all his class-mates contrived to station him at recitations where the most difficult sentences would fall to his share. His patient application turned their malice so much to his advantage, that when the period arrived for his removal to college, he was thoroughly prepared to enter, and to derive from his collegiate course all the benefits it is adapted to render.

He found at college some young men who had been his school-fellows. Recollecting their old grudge against him they one day, while eating some strawberries, thought they would practice on him a practical joke. They filled a bowl with the finest strawberries they could procure, and strewed over them a quantity of tartar-emetic in some finely powered loaf-sugar ; and watching the opportunity of his absence, placed them on a table in his room. He was surprised on his return to find the bowl of strawberries; but supposing a servant had mistaken his room for that of some other
student, he carefully placed the strawberries on a shelf till they should be inquired after, without indulging his appetite so far as to eat one; because, as he acted from a principle of propriety, he was not disposed to violate the principle for one strawberry, after he had determined he would not violate it for the whole bowl full.
The young men who practised on him this unworthy trick, were delighted in the anticipation of his sickness. They were very merry, and as they had provided themselves with wine and cigars, they drank and smoked till they became so boisterous that a tutor overheard them; and going to the door he found it locked. He demanded admittance, which they refused with taunts and groans; till he became so incensed at the indignity offered to him, that he forced the door. The rioters immediately fell upon him and beat him, having first extinguished the candles to prevent a recognition of their persons; but he knew several by their voices, and they were on the next morning called before the faculty. They refused to disclose their associates, and were all expelled except one who relented, and narrated the whole adventure, including the trick with the strawberries. The president was much alarmed when he ascertained the quantity of tartaremetic that had been thrown over the strawberries, and went immediately to ascertain in person the consequences. He entered the room with trepidation, and was surprised to find that no evil had ensued; and he was particularly pleased when he ascertained that the virtue of the young man had protected him from danger.

From the above period, the president interested himself daily in the scholarship of Richard, and frequently related in society the escape which the young man had experienced from a danger that seemed almost inevitable. A New-Haven lawyer heard the anecdote, and as he had once delivered a lecture before a lyceum of the city, on the preservative influence of virtue, the conduct of Richard seemed to illustrate the theory, and produced in the lawyer a strong desire to benefit the illustrator. He accordingly, when the young mangraduated, received him into his office as a law student, and attended with much interest to his legal studies.

This gentleman, Thomas Burlingston, will be well remembered at New-Haven, as a lawyer of distinguished celebrity throughout Connecticut, at the period in question. He possessed only one child, a young lady of much beauty, good humour, and intellectual cultivation, with whom the young student could not fail from being interested, as frequent opportunities brought them together in social intercourse. But he was poor, and her father was rich and aristocrat c ; and, besides, she was known to be engaged to a gentleman of suitable wealth in the city of Hartford; all which caused the young student to restrain his feelings, rather avoiding than wooing the young lady; and always addressing her with great respect and reserve.

In this period of his clerkship, one of the young men who had been expelled from college, resolved to make one more effort to injure him ; and to effectually revenge his own expulsion. He accordingly wrote an anonymous letter to Mr. Burlingston, alleging that his daughter was in danger from the arts of the clerk, who was assiduously endeavouring to gain her affections. Mr. Burlingston was naturally indignant at the alleged treachery of a young man whom he was endeavouring to benefit; but that he might not condemn him unheard, he called him into his private office, and presented to him the letter. The young man read it with emotion, and with the frankness of innocence acknowledged the warm esteem that he felt for the young lady; but he repelled the imputation that he had in the slightest manner permitted his feelings to appear in his conduct or conversation; on the contrary, he had sedulously avoided all unnecessary communication with her, even to the danger of being deemed by her rude or unaccommodating.

The ingenuousness of this explanation and confession so enhanced the clerk in the estimation of the father, who never felt wholly satisfied with the moral character of the gentleman who was engaged to his daughter, that shortly after this private eclaircissément, the engagement was, for adequate reasons, rescinded; and in the course of another year the daughter and the clerk became man and wife, with the approbation of Mr. Burlingston, and to the great satisfaction of the young couple. On the
day which witnessed the celebration of the marriage, the young husband obtained a license to practice law as an attorney, and he was immediately taken into partnership with his father-in-law. His subsequent career was more than ordinarily prosperous, His diligence in business, his faithfulness to the interests of his clients, and his acknowledged general probity, soon gained him property enough to maintain his wife respectably, and eventually to surround them with ease and elegance. At this period of his life, he was accustomed to travel during some part of the summer months; and on one of these occasions, when he was visiting the scenes of his boyhood, he took a fancy to again try his luck at fishing over the unfathomless hole in Success Pond; though his wife was not quite pleased with this new experiment, lest he should again fish up the Naiad, and receive some announcement less agreeable than the first. But he only good-naturedly laughed at her suspicion; and proceeding, early one morning, to the old spot, he cast in his line as he had done some fifteen years previously, and soon obtained a bite of something which seemed to be heavy. He felt no doubt it was the Naiad, and pulled up cautiously lest he should hurt her; but, on getting his hook to the surface, he found, to his great disappointment, that nothing was attached to it but an old fish net, which he was in the act of throwing back into the lake, when he observed in its folds a curiouslyshaped stone or tablet; on it was engraved, in large Roman letters," The man who will not injure himself, no person can injure." This is the last intercourse the Naiad has deigned to kold with mortals; and that no possibility of cavil may exist in relation to her existence, the stone with its original inscription is preserved under a glass case by the public spirited innkeeper of Lakeville, and may be seen at at all times on the mantle-piece of his best parlour; and what adds peculiar value to the relic is a tradition, that whoever will read the inscription on the tablet, and confirm to its teachings, will succeed in life as successfully as Richard. The tradition rests, not wholly on faith, but on experience; and the landlord's parlour, like the ancient temple of Æsculapius, is ornamented with votive testimonials of persons who claim to have
been benefitted by the process. Among the beneficiaries we remember one name, because we happen to know the individual. He is a banker, residing in a village some few miles west of Geneva, who, by adhering closely, from a boy, to the inscribed maxim, finds himself at the maturity of life, worth more than half a million of dollars, acquired without his having made any man the poorer. The casualties which make improvident persons fall down, make him get up; and, in contemplation of this peculiarity, the landlord intends this summer to add another tablet to the mantle-piece, to the effect, "that the man who will take good care of himself, will be sure to receive the good care of Providence,"

## 215. THE FAMILY BIBLE.

Thou art not in morocco bound; Thy leaves not edged with gold; Thou thumb-worn art in many a place, And very, very old.
Bequeath'd unto my mother, thou To her a guide didst prove,
From this dark wilderness unto A paradise above.
'Tis forty years since at her grave The bitter tear I shed;
And I can say these forty years, Blest book thou hast been read, And shalt while doth my vision last; And should I blind e'er he,
Thy choicest texts will find a place Within my memory.
I have a child, an only child,
But have no will to make;
"Silver and gold," as Peter said, "I've none" But she can take From these old hands what better is Than silver or than gold -
A treasury, wherein she'll find Things that are "new and old." Bristol. L. M. Thornton.

## 216. FORTITUDE UNDER DIFFI-

 CULTIES.-Let him not imagine, who aims at greatness, that all is lost by a single adverse cast of fortune; for if fortune has at one time the better of courage, courage may afterwards recover the advantage. He who is prepossessed with the assurance of overcoming, at least overcomes the fear of failure; whereas, he who is apprehensive of losing, loses, in reality, all hopes of subduing. Boldness and power are such inseparable companions, that they appear to be born together; and when once divided, they both decay, and die at the same time.217. REMARKABLE EVENTS IN PAST JANUARIES.- Calendar of tha Month:-
218. Circumcision--Charles II. crowned, 1651,
219. Edmund Burke born, 1730.
220. Cicero born, B.C. 107.
221. West Indies discovered, 1492.
222. Duke of York died, 1827.
223. Epiphany.-Twelfth Day.
224. Allan Ramsay died, 1758.
225. Lucian.-Galileo died, 1642.
226. Royal Exchange burnt, 1838.
227. Penny Postage commenced, 1840.
228. Sir H. Sloane died, 1753 .
229. Lavater died, 1804.
230. Earl of Eldon died, 1838.
231. Edward Halley died, 1742.
232. Dr. Aikin died, 1747.
233. Sir John Moore killed, 1809.
234. Benjamin Franklin born, 1706.
235. Prisca. - Houses of York and Lancaster united, 1486.
236. James Watt born, 1736.
237. Fabian.-John Howard died, 1790.
238. Agnes.-Miles Coverdale died, 1568.
239. Vincent.-Bacon born, 1561.
240. Duke of Kent died, 1820.
241. Fox bort:, 1749.
242. Conversion of St. Paul.-Dr. Jenner died, 1823.
243. Sunday Schools established, 1784.
244. Dr. C. Hutton died, 1823.
245. Sir F. Drake horn, 159 ).
246. George III. died, 1820.
247. Martyrdom of King Charles I., 1649.
248. Ben Jonson born, 1574.

The Red Letter Days of the month are as follows :-

1st. "Circumcision," or " New Year's Day."-This was kept as a festival of the Greeks, in which they celebrated the completion of the sun's annual course, and rejoiced that it had again begun its enlivening progress ; and in honour of Janus by the Romans, who were in the habit of sending presents of dried figs, dates covered with leaf-gold, also honey and other sweetmeats, to their friends-expressing a wish that they might enjoy the sweets of the year into which they had just entered. They also visited and congratulatedeachother, and offered up vows for mutual preservation. The Day of Circumcision was instituted in the Christian Church by Pope Felix III., A.D., 487, under the denomination of the Octave of Christmas; and introduced into time English Liturgy in 1550, in commemoration of the circumcision of Jesus Christ, ascording to the Jewish ritual, on the eighth day after his nativity.
The first of January having been observed by Pagan nations as a day of rejoicing,
and for offering up sacrifices to the idol Janus, the primitive Christians celebrated it as a Fast, in order to avoid even the semblance of joining in their customs and worship. According to the Catholic legends, it was held in such high esteem by the Romans, that they would not sully it, even by martyring the Christians at such a joyful period! It is still kept as a holiday throughout the several nations of Europe and America; the bells of most of the churches being rung at midnight to welcome the New Year.

6th.-" Epiphany." This day was kept in remembrance of the manifestation, or showing of Christ to the wise men, who, having seen his star in the East, went in search of him and found him at Bethelem, where they worshipped and offered sacrifices.

There was a great difference of opinion respecting the origin of Twelfth-day, but it appears to have been decided at last, as follows :- "That the practice of choosing King on Twelfth-day, is similar to a custom that existed among the ancient Greeks and Romans, who, on the festival days of Saturn about this season of the year, drew lots for kingdoms, and, like kings, exercised their temporary authority." Many curious local customs prevail respecting Twelfth day, which is called thus from its falling on the twelfth dey after Christmas-day; but, as they would almost fill a good-sized volume, we abstain from any mention of them.

8th.-"St. Iucian" was a learned Syrian who died in the year 312, and is said to have instructed Arius in the doctrine that distinguishes the sect of Ariens from others.

18th.-" Prisca" was a female who was beheaded in 275, by order of the Emperor Claudius, after enduring torture to make her abjure the Christian faith.

20th. - Fabian" was the nineteenth Bishop of Rome, being elected to that office in the year 241 ; and, after being bishop thirteen years, suffered martyrdom in the Decian persecution.

21st.-"Agnes." St. Agnes was a young Romish maiden, who suffered martyrdom under Diocletian, 303. A custom prevailed, in various parts of England, of young women performing certain ceremonies, in order
that they might dream of their future husbands.

22nd.-"St. Vincent" was a Spanish martyr, who died in 304, after enduring torture by fire.

25th.- "Conversion of St. Paul." This is a festival held in commemoration of the conversion of St. Paul, and is kept by the Churches of England and Rome.

30th. -" Martyrdom of King Charles I." This is observed by the Church of England, to perpetuate a remembrance of the beheading of King Charles I. We believe that the sheet which received the head of the unfortunate monarch, his watch, and some other relics, are preserved at Ashburnham.
218. SIMPLICITY OF DRESS.-Female loveliness never appeared to so good advantage as when set off with simplicity of dress; and our dear human angels-if they would make good their title to that nameshould carefully avoid ornaments which properly belong \%o Indian squaws and African princesses. These tinselries may serve to give effect on the stage or on the ballroom floor, but in daily life there is no substitute for the charm of simplicity. The absence of a true taste and refinement or delicacy cannot be compensated for by the possession of the most princely fortune. Mind measures gold, but gold cannot measure mind. Through dress the mind may be read, as through the delicate tissue of the lettered page. A modest woman will dress modestly. A really refined and intellectual woman will bear the marks of careful selection and taste.
219. CHEERFUL HEART.-There are some persons who spend their lives in this world as they would spend their lives if shut upin a dungeon. Everything is madegloomy and forbidding. They go mourning and complaining from day to day that they have so little, and are constantly anxious lest what they have should escape out of their hands. They always look upon the dark side, and can never enjoy the good. They do not follow the example of the industrious bee, who does not stop to complain that there are so many poisonous flowers and thorny branches on its road, but buzzes on, selecting his honey where he can find it, and passing quietly by the places where it is not.


THE FLOWER PATTERN LAMP SHAUE.
220. BEAUTIFUL LAMP SHADES.-

We are happy to lay before our readers instructions for making lamp shades of exquisite beauty and endless variety, by a process so easy and inexpensive that it may afford evening occupation to ladies, the results of which cannot fail to be at once gratifying and useful.
221. By the process which we are about to recommend lamp shades may be made so beautiful, that the two illustrations we give convey but a very inadequate idea of the rich effects that can be produced by the simplest materials.
222. In addition to the designs which we give, snow scenes, waterfalls, moonlight scenes, ruins of castles, groups of animals and of fruit, \&c., may be produced according to the skill and taste of the manipulator.
223. The materials simply consist of glazed cardboard, of middling thickness, a few sheets of tissue paper of various colours, a black lead pencil, and a little gum or paste. A few cake water-colours may be used or be dispensed with at option.
224. The tools consist simply of a cutting board of rather hard wood, a sharp penknife, a scissors, a stout pin, and a large needle or two, such as those used for mending stockings or for knitting.
225. With these simple and inexpensive materials the most beautiful effects may be produced; and so readily do the effects come up, when the shades are illuminated by being placed over the lamps, that the manipulator must be a rare blunderer who cannot produce them, and invent a great variety of beautiful designs.


THE SWAN PATTERN LAMP SHADE.
226. The art of making these beautiful lamp shades simply consists in cutting the outlines, and the leading lines necessary to denote the form of any object which it is desired to represent; and although these lines may appear to be exceedingly arbitrary and rough, the effect derived by the light of the lamp being transmitted through these cuttings is indescribably beautiful.
227. In order to obtain a good shape for the lamp shade cut one out of a piece of old newspaper or a sheet of thick brown paper. Try it on to the lamp, and when you have obtained a shape that will do, you may proceed to cut out the shape in the glazed cardboard.
228. The Flower Pattern Lamp Shade is made in precisely the same manner, with the exception that for this shade a white
glazed cardboard is used, and coloured tissue papers, of the richest colours that can be obtained, are laid underneath, to give the 1roper colours to the flowers, and green paper for the leaves. Roses, fuschias, dahlias, crysanthemums, pelargoniums, tulips, lilies, \&c., \&c., may all be represented with beautiful effect; and where peculiar tints, upon coloured grounds, are required, they may be obtained by colouring in water colours the spots or stripes upon the tinted papers that are laid underneath. This shade, and, indeed, all shades thus made, should be lined in and finished with white tissue paper, which not only conceals the patchwork from the eye, but moderates the light, producing a very soft and pleasing effect.
229. The Swan Pattern Lamp Shade, of which we give an illustration, is made thas .

The cardboard is green glazed, and the green is kept on the outside. The white lines shown in the drawing indicate simply the cuts with the penknife, by which large broad leaves, water, rushes, and a willow tree are formed. The leaves, \&c., are cut through, from the green side, but the dotted heads of flowers, rushes, \&c., are punctured through, with a pin or large needle, from t.he inside, which gives them a more open and free appearance than could otherwise be obtained. The shape of the swan is cut out of the green cardboard, and a corresponding shape in white cardboard is cut, and let in, and is fixed in position simply by a piece of white tissue paper gummed over the back. The bill of the swan is rendered yellow, by a piece of yellow tissue pasted at the back; and the upper part of the bill and the feet are rendered black, either by a piece of black paper pasted over them at the back, or by a thick coating of Indian ink, or common ink. This is all that is required to produce a most beautiful effect. When the shade is completed, it is to be lined throughout with tissue paper merely gummed at the top and bottom edges. This serves to conceal the cuttings, \&c., in the inside of the shade. The ends of the shade are to be firmly gummed together, and strengthened by a strip of paper on the inside. The feathers of the swan are indicated by cuttings with the penknife, just as the other effects are produced. The black lines in the engraving, on the body of the swan, show the character of the cuttings.
230. The cardboard should be sufficiently opaque to prevent the passage of light in any part where the effect is not sought to be obtained. And to this end it may be necessary, in some instances, to line the shade with a dark-coloured paper.
231. The designs should be slightly traced out in pencil before the cuttings are commenced, but the merest outline will suffice to guide the hand of the operator.
232. A very beautiful shade of poppies and wheat-ears may be made with great ease, and is probably one of the simplest patterns to legin upon.
233. Before lining the shade, hold it to the light, and study the effect. Open the leaves of the flowers, \&c., to let the light pass through with greater power in some parts than in others. This will give rich-
ness and freedom to the desigi. Also, before lining, deepen the shade in some parts, by additional layers of dar-coloured paper, and do away with any appearance of patchiness from the paper behnd, which may be accomplished by additonal layers of paper, or by removing edgesof cuttings, where they have a tendency toslow through.

## 234. GHOST STORIE.

The letters of Sir David Irewster upon Natural Magic, which were lesigned as a supplement to Sir Walter Sott's Essay on Demonology and Witcher aft form an admirable treatise of this charactrr, which should be put into the hands of erery child, as an antidote to the spurious puilosophy of the day. In it are to be fourd explained some of the most astonishing ,henomena of nature, as well as many of he surprising contrivances of art, ancient and modern. For example, he shows us how, upon purely natural principles, we may account for many marvellous deceptions of the sight. He points out why it is, that the involuntary expansion of the eye in a very obscure light is unfavourable to an accurate perception of the form, size, and distance of objects -why the brighter parts of an object are often visible, whilst the other parts are un-seen-why parts of one object thus seem to be combined, not unfrequently, with those of another-why objects sometimes appear to us in positions, and at distances, that are really impossible-and why, the focus of vision being in such cases ill adapted to the perception of near objects, they disappear at the very time when we expect to see them most distinctly. These suggestions go very far to explain the apparitions, so generally seen at twilight, or after dark-of grotesque and misshapen figures-in situations where, by the laws of nature, they could not be found-and almost invariably clothed in white, which, from its contrast to surrounding objects, is most likely to attract the notice of the beholder. There are also the gigantic spectres of the Brocken-the pictures in the air of ships, castles, and mountains, of men and horses trooping along the face of inaccessible cliffs-all of which are familiar to us now as the effects of reflected and refracted light. Such appearances have constantly been regarded in ignorant times
as the reults of witcheraft and magic; and are still newed as alarming portents by the great maprity of those who witness them. Yet, in the hands of the true philosopher, they are sripped of all their mysterious terror, and become pleasing manifestations of the woncerful perfection and variety of the works ol God.

But our bisiness is just now with things of much lesspretension ; and, without further preface, we come to the promised stories, which we leave our friend to tell in his own way; to which he is the better entitled, as he professes to have derived them, for the nost part, from actual witnesses.

## FIRST STORY.

A youth, about 14 years of age, was sent to pass some weeks of his summer holidays with a great aunt, who lived in one of the old counties of the Old Dominion. The venerable lady occupied one of those great mansion houses, memorials of the colonial aristocracy of Virginia, built of imported bricks, full of staircases and passages, and with rooms enough to accommodate half-a-dozen families, and scores of individual guests, when congregated for some high festival. But at this time it was almost deserted. The old lady and her grand-nephew were the only white persons within its walls. She occupied a bed-room on the first floor: our hero slept in the storey next to the garret: and the servants were all in the basement. During the day, his time passed merrily enough. Horses, dogs, and guns-boating and fishing-filled up the hours with sports, in which he was supported by as many of the Africans, great and little, as he thought fit to enlist in his service. But the nights hung heavily. His aunt always went to bed at an early hour. The few books in her library were soon exhausted; and the short evenings of summer seemed to his sleepless eyes to be stretched out interminably. Now and then a gossip with some old negroes, who had grown grey in the family, beguiled him with snatches of the history of the former occupants of the hall; and these narratives, as might be anticipated, were plentifully sprinkled with incidents of the superstitious character, in which such old crones delight.

One night, he had lain in bed a long
time, ccurting in vain a relief from ennui in sleep. He had listened, till he was tired, to the ticking of the antique clock, to the whistling of the wind about the clusters of chimneys, and the echoes that repeated and prolonged every sound in the interior of the house, through its vast and empty spaces. The latter class of noises had entirely ceased: and the profound stillness that pervaded the mansion was broken only by the monotonous voice, which told him how slowly the weary minutes were passing by. He had thought over more than one tradition of the olden time, as it had been related to him, with its concomitants of a supernatural description; until, in spite of his better reason and fixed disbelief of such things, he found himself growing nervous and uncomfortable. He began to fancy that he saw strange things in the uncertain moonlight, and was almost afraid to look at them steadily enough to undeceive himself. Suddenly, he heard, right over his head in the garret, a dull knocking sound, which travelled back and forth-now in this direction and now in that, with a succession of thumps: Anon he thought he could distinguish something like a stifled voice; and this inpression was confirmed when the knocking got opposite the door of the garret, whence it came down the stairway and through the passage, uncbstructed, to his room. A will, unearthly cry, uttered as if by a person choked or muffled, and expressive of painful suffering, smote upou his ear. He started up in bed: and at this instant the sound began to descend the stairs. At first, it came down two or three steps with successive thumps-then it seemed to roll over and over, with a confused noise of struggling and scratching-and so on, with an alternation of these sounds until it reached the floor of the passage. Here the dull knocking was resumed as it had been first heard in the garret, rambling hither and thither, at one time approaching the chamber door, till the poor boy strained his eyes in instant expectation of witnessing the entry of some horrible shape. But it passed by, and at last arrived at the head of the next flight of stairs, where it recommenced the descent after the manner already described. At intervals rose the same stifled wailing, so full of mortal ter.
ror and agony, that it almost froze the marrow in his bones. When he was assured by the sound that the traveller had arrived at the floor below him, he mustered courage, and by a great effort jumped out of bed, huddled on his clothes, and hurried to the head of the stairs, armed with an old sword that hung in his bed-room, and which had probably seen service in the Revolution or the old French war. But he had no mind to encounter his mysterious enemy at close quarters, and contented himself with following its progress at a safe distance, and peeping over the balusters in the hope of catching sight of it. In this, however, he succeeded only so far as to get one glimpse, as it passed a window, of something with an enormous and shapeless head: and the slow chase was kept up, till he found himself at the head of the steps leading down to the basement, while his ghostly disturber was at the foot, thumping and scratching at the kitchen door, and uttering the same indescribable cries as at first. Two or three of the servants had been aroused by the din, and were crouched together in the furthest corner, trembling with fear, and in momentary expectation of suffering death, or something still more dreadful. At last the latch of the door gave way, to the repeated assaults of the unwelcome visitor, and he rolled into the middle of the floor, in the full blaze of the fire light, and under the very eyes of the appalled domesties.

The mystery was at an end-the ghost exposed-and an explosion of frantic mirth succeeded to the breathless terror which oppressed them. An old grey tom-cat, as it turned out, in his rambles through the house, had chanced to find in the garret a large gourd, in which the housemaids kept grease for domestic uses. Into the opening of the gourd Tom had worked his head with some difficulty, and without duly considering how he was to get it out again. When be attempted to do this, he found himself tightly grasped by the ears and jaws, and secured in a cell which became every instant more intolerable. Hence his struggles to escape-hence his unearthly and smothered cries-and hence the extraordinary varieties of locomotion, by which he accomplished his long journey from the top of the house to the bottom.

Our hero drew from the issue of this adventure a confirmed resolution against a belief in the supernatural; anc detailed the particulars next morning, with great unction, to his good old aunt, who had slept comfortably through the whole of the uproar.

## SECOND STORY.

A carpenter was at work one night, at a late hour, in the second story of an unfinished house in Philadelphir. He was a man of strong, plain sense, free from superstitious belief, and of cool courage and selfpossession. On the side of the room opposite to his work bench, came up the flight of steps from the first floor ; and on the same side, but at the other end of the house, was the flight leading to the third story. The floor on that side was clear of all rubbish, and gave him an unobstructed view of the space between the landing of the first flight of steps, and the foot of the second. Suddenly he was surprised to hear a hcavy, reçular, but seemingly muffled, footstep, proceeding along the floor of the room beneath. He knew that the two doors were locked, and all the windows secured, and he wondered how any one could have found entrance. However, as he feared no harm, he waited with composure the coming of the intruder, whom he now distinctly heard ascending the stairway. But when the approaching steps at last reached the landing place, and no figure became visible, he was filled with astonishment. Without pausing, the mysterious visitor proceeded, with the same measured tread, in the direction of the next flight of stairs, passing directly in front of the carpenter, and where it should have been in his full view, but he could see nothing whatever. The place was well enough lighted, he looked sharply along the line of motion, following the sound with his eyes, but he could detect no trace of the person whose movements produced it. At length, the step reached the foot of the second flight of stairs, which were also full in our hero's sight, and began to ascend them also. By this time his amazement had reached a climax, not unmingled with some vague apprehensions, which he had no time to analyse. Still he stood motionless, gazing eagerly, as the invisible night-walker mounted step after
step, and had almost reached the top. And then-as if the scales had fallen from his eyes, or the object which they sought so long in vain had flung aside the veil which concealed $t$-he was aware of an enormous wharf rat, jumping from step to step, with a noise pretisely like the heavy, dull, footfall, we have described. He now easily understood why it had escaped his notice. He had looked too high: and so failed to discover "the gentleman in black," until he had attained an elevation above himself. But he admitted very candidly that, had he not seen the rat at that last moment, his belief in ghostly visitations would have been seriously shaken.

## THIRD STORY.

A labourer, on his way homeward about nightfall, was passing along the outskirts of a little village, when his ear was assailed by repeated groans, which seemed toissue out of the very ground beneath his feet. Looking about him, and listening, he presently discovered that they approached from an old well which had been abandoned, and was half filled with rubbish. Approaching the edge of it, he called aloud, but received no answer, except the same groans, which were uttered at intervals, with a hollow reverberation, that appeared to die away in subterranean passages. To see anything below the surface was impossible ; and the man set off at once to announce this strange occurrence, and seek assistance from the nearest houses. The alarm spread rapidly; and, in a little while, a busy crowd was collected at the spot, with torches, ropes, and other implements, for the purpose of solving the mystery, and releasing the unknown sufferer. A windlass and a bucket were hastily procured, and rigged up; and one, more adventurous than his neighbours, volunteered to descend. They let him down about twenty-feet, until he reached the bottom, which he declared to be covered by a large barrel, upon which he found firm footing. At this time, the noise had ceased; and the new comers were disposed to question the truth of what had been told them. But those who had first reached the place stoutly and angrily reasserted the reality of what they had heard. The first explorer had been drawn up almost to the top, when the groans were renewed, to the discomfi-
ture of the sceptics, and the dismay of the bystanders. Dark hints were conveyed in smothered whispers from one to another. A few were observed to steal out of the circle, and silently move off towards their homes. None showed any particular in. clination to repeat the descent in their own persons. But, at last, two or three, more resolute than the rest, "determined at all hazards, and to the last extremity," to know what was beneath this barrel. A pair of shears were sent for, such as are used for hoisting heavy packages into warehouses. Another descent was made, and, in spite of groans that might have shaken the nerves of Pilgrim himself, the shears were securely hitched on either side of the barrel. Several pair of strong arms were applied to the windlass, but all their efforts proved fruitless for a time. It seemed as if the barrel had been anchored to the rock-fast foundations of the earth. At last, however, it yielded a little; and with a slow, interrupted motion, and a harsh, scraping sound, an empty barrel, with no heading, was detached from its fastenings, and then brought up rapidly to the top. Once more, a daring fellow went down, armed to the teeth, after giving repeated injunctions to his assistants to turn very slowly, and hold on hard. He encountered at the bottom a formidable animal indeed, at least, in such a situation It was no other than a cow, jammed into the lowest part of the well, with her branching horns pointing directly to the sky above. The poor beast, indulging a natural taste, had thrust her head into an empty salt barrel. Her horns had stuck fast in the sides ; and retreating blindly, in her efforts to escape, she had backed down the dry well, dragging the barrel after her, which fitted so closely to the walls of the pit, as to break the force of her fall. With some difficulty, the poor creature was extricated from her sad plight, without injury, but probably not without matter for serious rumination.

## FOURTH STORY.

The subject of the fourth and last story is the only one not derived from parties personally cognisant of the facts: but this circumstance is fully compensated by the notoriety of the occurrence at the time and place where it happened, as well as the pro.
minent social position of the gentleman concerned in it. He was a lawyer of respectability in the State, and was riding alone one summer evening to attend a court. The clouds, which had been threatening for some hours, shut out the expiring gleams of daylight by suddenly folding together their dark and heavy skirts, and began to let fall those great drops of rain which precede a thunder-storm. The road was lonely; for it lay chiefly through forest land, and where it skirted a plantation, it was generally at some distance from the mansion. The traveller was thus obliged to keep on his course, long after the increasing violence of the storm had made him long for some shelter, however humble. In vain did he endeavour, by aid of the lightning that fla hed every instant around him, to descry some house; in vain did he hope, in the moments of darkness which intervened, to discover tle faint twinkle of light from some log cabin or negro-quarter. Meantime, the elements seemed to lash themselves into greater fury: the lightning blazed incessantly, the thunder crashed into his ears, and the falling limbs of trees contributed to the danger and embarrassment of his situation. His horse became terrified: now he stood still and trembled, resisting every attempt to urge him on; and now obeying a sudden and frantic impulse, he would spring forward with a force that menaced destruction both to his rider and himself. After some miles had been passed in this way-an experience which no man can well appreciate who has not endured it-the traveller was overjoyed to find himself in the neighbourhood of a house. It was one of the old glebe churches, deserted and partly in ruins ; but the walls and the roof were still sufficiently good to afford some protection, and of this he gladly availed himself. Dismounting at the door, he led in and tied his horse, and took his seat in one of the pews, until the abatement of the storm should allow him to proceed. The place, the hour, the scene, were calculated to excite impressions of awe, and his first feelings of satisfaction naturally gave way to thoughts of a serious and solemn character. Thus occupied, he sat for some minutes, taking advantage of the fitful light, which momently illumined the church, to survey its interior. At last
his eyes rest on the pulpit, and hos seesno! it is impossible-yes, he dees see a figure all in white, its face pale and ghastly, but its eyes gleaming with the fire of an incarnate fiend! Now it stretches itself upward, tall and erect, its long skinny arm pointing to Heaven! Now it leans over the sacred desk, gesticulating and gibbering, with wild and devilisi grimaces, that seem to mock those to whom they are addressed, with threats of hellish torture! Is there any one else in the charch? Not a soul is visible. There is our lawyer alone, with that strange and fearful preacher-no inattentive observer, we may be sure, of the pantomime, which is but half revealed to him; it is only a pantomime, for the roar of the elements drowns every other sound, and no voice falls upon the ear. What are his thoughts at this moment? It would be hard to say. Let the man of firmest nerves imagine himself, fatigued and exhausted by such exposure and toil, placed in a situation so unusual, and witnessing a spectacle so terribly like the legends of infernal malice and blaspheny, and let him pronounce, if he can, that his courage and self-possession would be equal to the trial. But to return-for some time the presence of the sole spectator seemed to be unnoticed by the occupant of the pulpit. But at last, curing one long, vivid flash, their eyes met, and-oh! the agony of that moment!-he saw that he was discovered! Instantly, the figure descended from the pulpit, and approached him with rapid strides. It was all over with his manhood now-he thought of nothing but flight-of taking refuge in that very storm, from which he had but recently escaped. He rushed towards his horse-but the animal had broken bridle, and was gone! Without stopping to look round, our hero gained the road, and set off at full speed; for he heard close behind him the yells and screams of his pursuer! It was a race for life-aye, and for what besides life, he dared not think; but he strained every nerve to outstrip the fiend who held him in chase. Alas! alas! his hour was come! Breathless, alike from exertion and from fear, his foot slipped, and he fell prostrate, while his enemy, with a shriek of tricmphant hate, leaped upon him, and fastened her claws into his
face and throat! He was incapable of resistance, for he had fainted.

Fortunately, at this very juncture, a number of other persons came to the rescue, whose approach was quickened by the cries which they had heard. They extricated the insensible man from the hands of the maniac, and took measures for his restoration, and her security. The unhappy woman had escaped that day from the custody of her friends, and hid herself in the woods. The vicinity of the old church was a favourite haunt of hers, and the storm drove her within its walls. Her disordered mind, excited by the sights and sounds of the tempest, sought a vent for its tumult in imaginary declamation from the pulpit, till the sight of a human face and form gave her feelings another direction. With what motive she first approached the intruder, of course, could never be ascertained; but the confession of weakness which his flight implied, and the maddening stimulus of the pursuit, would have sufficed to change an indifferent, or even a kindly purpose, into one of bitterness and fury. Such is the explanation of this singular and painful adventure: an explanation, however, which, in the impressions left upon the mind, does approximate nearly to the effect of tragic and supernatural fictions.

## 235. STATISTICS OF PIG FEEDING.

 -I have turned my attention to this branch of farming ; I shall be happy if my experience can be of service. I breed all my own pigs. The sows are of the improved Essex breed, commonly known as Mr. Fisher Hobbs's; the boars principally of Mr. Northey's breed, which he called the improved Leicester, and which with the same prime quality are rather larger than the short Essex sort. I have accommodation for 57 feeding, 19 pens of 3 . They require one responsible man, a woman and a boy to attend, to bed them, to scrape and steam the Swedes, to feed thew, and throw out the dung. My steaming apparatus is very simple, but most effective; thanks to Mr. Mechi's recommendation in your columns of Mr. C. W. William's book on the "Combustion of Coal," \&c.., I can steam one ton per day of Swedes with less than fifty pounds of coal and a little wood. Owing to climate our corn is not of first-rate quality, but we make up in quantity by sowing an equal mixture of barley and oats, which we call dredge-corn. This crop is also better suited to our land, which presents two or three different characters in every field, from stiff clay to light barley soil. The expense of grinding is met by the miller's customary toll of four pounds to the bushel. This covers waste and carriage. For the Dr. and Cr. account below, I have taken an average pen of three pigs for the sake of conciseness :-

Dr. Account.
feed Nov. 1,1855 , esti-
\& s. d.
3 pigs put up to feed Nov. 1, 1855, esti-
mated market value .... ... ... 9 o
4 qrs. of dredge-corn, at 30 s. $\quad$... $\quad \ldots .6$ 4 tons Swedes, at 13s. ... ... ... 212 a
 $\begin{array}{llllllll}\text { Attendance } 16 \text { weeks } & . . . & \ldots & \ldots & 0 & 16 & 0 \\ 24 \text { cwt. of straw } & \text {... } & \text {... } & \text {... } & \ldots & 1 & 4 & 0\end{array}$

## Expense of feeding ... ... $\begin{aligned} & 1915 \\ & 4\end{aligned}$

Cr. ACCOUNT. \& s. d.
$59 \frac{1}{2}$ stone of pork sold on the spot to
higler, at 6s. $8 \frac{1}{2} d$ d....$\quad$... $\quad . .1919191 \frac{3}{4}$
16 loads of dung, at $2 \mathrm{~s} .6 \mathrm{~d} . \quad \ldots \quad \ldots .200$
3 pigs' bellies $\quad . . \quad$... ......$\quad 0 \quad 3 \quad 0$
$\begin{array}{lllllll}\text { Gross return } & \ldots & \ldots & \ldots & \ldots & 22 & 2 \\ 1_{3}^{\frac{3}{4}} \\ \text { educt profit on } 3 \text { pigs } & . . & \ldots & \ldots & 2 & 6 & 9^{\frac{3}{2}}\end{array}$

Deduct profit on 3 pigs ... $\quad \cdots \quad \cdots \quad \cdots \quad 2 \quad 6 \quad 9$| $9^{\frac{3}{2}}$ |
| :--- | :--- | :--- | :--- | :--- |

$£ 19154$
Thus I calculate if I can clear the dung, it is as much as I can do after making the market value of my own farm produce at home. I cannot give any estimate of the expense of rearing pigs to a proper age for feeding, unless the old saying is true, that it costs 11d. per week to make a store pig gain 1s.-Walter T. Bullock, Hegadon, Holsworthy, Devon.
236. ONE THING AT A TIME.Step among your neighbours, reader, and see whether those among them who have got along smoothly, and accumulated property, and gained a good name, have not been men who bent themselves to one single branch of business. It must be so. Go out in the spring, when the sun is far distant, and you can scarcely feel the influence of its beams, scattered as they are over the wide face of creation; but collect those beams to a focus, and they kindle up a flame in an instant. So the man that squanders his talents and his strength on many things, will fail to make an impression with either; but let him draw them to a point-let him strike at a single object, and it will yield before him.
237. JANUARY FOR THE BOYS AND GIRLS.--No doubt some guide to young people in the selection of their toys and games, month by month, will be very acceptable. It will enable them to select those pastimes which are seasonable, and calculated to promote health and enjoyment at the proper times, and under suitable circumstances. "The right toy in the right place," is as important a principle to the child, as " the right man in the right place" is to the grave politician.

Some months, from their coldness, are suitable to active exercises, in which out-ofdoor games, some of which we now give, will be found highly conducive to health. Other months, from their dryness and warmth, are suitable to such games as marbles, whip-top, \&c. Others are suitable to kite-flying, boat-sailing, \&c., \&c., and we shall proceed to point out these pastimes at the proper periods. While, in a climate which is ever varying, in-door games will be found acceptible, even at all seasons. We shall, therefore, give a number of them, varying them as much as possible, to suit the months of the year in which they are to be played.
238. Hoors.-In cold, dry weather,


Fig. 1.
Hoops made quite Fig. 2. any other sort. uite flat on both sides, are best for very young bowlers, as they require less skill in keeping them up. Iron hoops are on many accounts objectionable. Besides the dust and noise which they make, they are liable to be driven through windows, or against the legs of persons walking. Nor are they so elastic as wooden hoops; which quality of elasticity is the very source of the pleasure derivable from hoop-trundling. Exercise with a good ashen hoop, is exceedingly good for
both boys and girls, and a good run will warm them in the very coldest weather. There is a game with the hoop called "toll," which we don't remember to have seen printed in any book of sports. Two pieces of stone are placed at the distance of two or three inches apart, and the game is to drive the hoop between them without touching either piece. See Fig. 1.
Another game with hoops is called "encounters," and consists in two players driving their hoops against each other from long distances, the conqueror being he whose hoop beats the other down.
Some boys make their hoops musical by means of round or angular pieces of tin, two


Fig. 3. of which are put together like cymbals, and attached by a short nail to the inner side of the hoop. A dozen pairs of these cymbals is sometimes attached to one hoop.
239. Skipjack.-This little amusement is almost peculiar to the end of the Christmas season, and is suitable for in-doors when rain or snow prevent the out-of-door sports. The Skipjack is most commonly made of the breast-bone, or the merrythought of a fowl, well cleaned. A piece of catgut, or strong string doubled, is to be tied securely round the two sides or arms of the bone, and a short stick introduced between the two strings forming the chord. This stick must be somewhat longer than the distance from the string to the arched part


Fig. 4. of the bone. The string has to be twisted by means of the stick until it begins to act like a spring. The stick has next to be shifted by forcing out one of its ends in such a manner that the longest end shall press against the toy at $A$ by the twisted string. A bit of cobblers' wax must then be applied to the underneath side of the toy, and the stick forcibly brought round and pressed against it. If it be now laid upon the ground, or upon the table, the spring of the string soon overcomes the adhesion of the wax, and the toy will spring a considerable height. The same plan may be applied to little wooden figures of rats, mice, frogs, \&c.
240. Trap Bat and Ball.-This is a first-rate out-of-door game at any time,


Fig. 5.
of the year and certainly not inappropriate to that season when the snow has whitened the ground, thereby rendering the ball a most conspicuous object on the landscape as it bowls or bounds along. The trap is something like a shoe in shape. It has a spoon or tongue, one end of which is at the bottom of the receptacle for the ball. Much of the science of the game consists in dealing the blow which strikes the ball out of the hole. The laws are as follows :-
Two boundaries are formed, equally placed, and at as great a distance as possible from each side of the trap, between which it is essential that the ball should pass when struck by the batsman; if it falls outside either of them he is out. In playing the strict game, besides the side boundaries, a line or tape should be stretched across the ground several feet high, and twenty feet in front of the trap; over this line the batsman must send his ball or he is out; but this mode of playing is seldom adopted by juvenile players. The game is played by any number, either singly or by choosing sides, The innings are tossed up for, and the player tho is to commence, places the ball in the spoon or tongue of the trap, touches the other end called the trigger with the bat, and as the ball hops from the trap, strikes it as far as he can. One of the other players tries to catch it; if he does so before it reaches the ground, or if the striker misses the ball when he aims at it, or hits the trigger more than twice, without striking the ball, or makes "an offer," he is out, and the next in order, which must previously be agreed upon, takes his place. Should the ball be fairly struck, and not caught, the out player, into whose hands it comes, bowls it from the place where he picks it up, at the trap; which, if it misses the striker is out. In case of his missing, the striker counts one towards the game. Any number may be said to be game-twenty, fifty, or a hundred.
It is to be observed in playing that the trigger should be struck just hard enough to send up the ball about a foot and a half from the trap. With a new trap, or one with which you were not previously acquainted, it is a good practise to strike the ball up and catch it in your hand once or twice before you really begin and call out "Play." This will enable you to judge the better where you should stand, so as to strike the ball with the greater force and to observe in what directics you should send it
with the least chance of its being caught. Many players miss the ball from want of deliberation.
This game should never be played in public thoroughfares, nor where glass may be broken, or other injuries sustained.


Fig. 6.

## 241. Antiquity of Trap Bat and Ball.

 -In an illuminated manuscript of the fourteenth century, we have a representation of persons playing at "Trap bat and ball," a copy from which is seen in the annexed figure. It will be observed that the form of the trap, differs from that in modern use; that it is raised from the ground; and that the bat used is broader. Certain comic images arise in the mind, in connecting the game of "trap bat and ball" with our ancestors of the time of the first Edward's and Henry's ; and we feel some difficulty in realising the idea of King John's barons occasionally relaxing from the cares of state by indulgence in an "innings" or two at trap-ball. Nevertheless, we are bound by the evidence to believe it to be not only a possible, but a highly probable fact.

Fig. 8.


Fig. 9.
242. Skipping-rope. - Skipping is an excellent exercise for girls in the winter seasons, providing that proper caution be observed. Why it should not do equally well for boys has never been clear to us. It is an exercise that may be taken in-doors, where there are large rooms devoted to nurseries, or school-rooms set apart for play.

Care should be taken to select a good hard and smooth walk for the purpose; not sosmooth as to be slippery, and perfectly dry. But it is not well to skip in-doors except where there are suitable rooms set apart for play, as the noise and vibration might cause annoyance to the elders of the family or household. A moderate use of the skip-ing-rope tends to promote grace in the attitudes and a healthy action of the body. Young skippers should avoid such feats as keeping up the action while long numbers are counted, such as a hundred, fifty, or even twenty. No good whatever, but a great deal of evil has been the consequence of such practice.


A skipping-rope ought to be about twice the length of the body. Beginners should at first practice the method shown in fig. 8, of simply springing and passing the rope under the feet. They may then pass to the running skip shown in fig. 9.

Fig. 10 snows thearmscrossed at the moment of throwing the rope. The other varieties of skipping are the hopskip, where one foot is held off the ground. The "jump-skip," where both the feet are held closely together in spring-


Fig. 10. ing. "Turn the mangle" where the rope is swung round sideways, as in the action of turning a handle previous to skipping over


Fig. 11. it, and "turn the rope," in which three or more children participate, two holding the ends of the rope, and the third jumping over it ; a variety upon this last is called "one skip and away," the girl in the centre has to spring over the rope once, and then run away before another circuit of the rope touches any portion of her dress-in which event she has to take her place at turning.


With regard to the promotion of health, skipping backwards is preferable to any other mode, as it throws out the chest, and tends to develope its healthy actions.
[A hint or two may be given to parents here. Do not suppose that the time devoted by children to the skipping-cord is "wasted." It is one of the best exercises they can pursue. It causes the free inspiration of air, and promotes the muscular development of every part of the frame. Children, both boys and girls, should be encouraged to take this exercise, daily, as a duty; and every facility should be afforded to them;
for the purpose.] for the purpose.]


Fig. 13.
243. Puss in the Corner.-This is an easy game, butitaffordsa great deal of amusement, and is very suitable for the winter season. It is played by five only; and the place chosen for the game should be either a square court, or any open space between trees, four of which about equi'-distant from each other, should be selected and marked in some way as homes. Each of the corners is occupied by one of the players; the fifth, who is named "puss," stands in the centre.

The game now commences; the players calling out to each other, "Puss! puss! give me a drop of water," endeavour to exchange corners. It is the object of the one who enacts "puss" to take possession of any one of the corners during the momentary absence of its occupant, i.e., during the exchanges. When he succeeds in doing this, that player who is left without a corner becomes the "puss." N.B.-In the case of

A and B exchanging corners, if A reaches B's corner, but B fails to reach A's before "puss" gets there, it is B , not A , who becomes "puss."
244. All of a Row. - This game is played under various names, but in no way so pleasantly and simply as in the following manner:-Two players have three counters each. A board is constructed by drawing upon a piece of cardboard, or upon a slate, the holes and lines as in the Figure .-


The object is to get your three counters in a row; which your antagonist will endeavour to prevent by placing his in the way. A row may be formed in any direction. After the men have been all placed upon the board each player endeavours to effect his object by moving in the direction of the lines. The player who first succeeds in getting his men "all of a row" wins. It is a game that the youngest child may practice ; it affords considerable amusement; and is the easiest introduction to draughts and chess. Anything will do for counters - three halfpence against three pence or farthings, or six pieces of china, or wood of different colours. Of course moves can only be made in a direction which is clear of impediment. It is not allowed to hop over the antagonist's counters.
245. A Geometrical Puzzle.-Given


Fig. 14, a square-as in Fig. 14-to divide it into seventeen smaller, but equal squares.

During the winter evenings great amusement will be derived from the enigmas, charades, conun-
drums, acting charades, \&c. \&c. A variety of these will be found by our young friends looking through The Corner Cupboard.(See 261 ; but first try to solve the puzzle.)

## 246. A CHARADE DRAMA. <br> Characters.

Sir Arteek Yellowleaf (from India).
$\left.{ }_{\text {Lilivir }}^{\text {OLIA }}\right\}$ his Nieces.
Masters Rrown, Jones,
and Robinson

## Scene I.

An Elegant Interior. Music Books and Instruments lying about.
Enter Lillife and Olivia.
Lilile.-Well, now, dearest, I am del:ghted that you so cordially fallintomy views. Oh! it will be charming! Dear uncle, who, as you know, arrived this morning from the East, where he had spent, I'm told, more than fifty years, but who was born uponthis very spot, is, nodoubt, passionately attached to old English customs. Among these, that one of celebrating Christmas with "waits" will probably be the most cherished in his memory, and delightful to his feelings.

Olivia.-Oh! beyond question, my love; and your plan of bringing in the assistance of our friends and beaux, Masters Brown, Jones, and Robinson, as the musicians, is, I declare, a perfect inspiration. But you are so clever!

Lillie.- Well, I don't know that I can justly claim all the merit of the idea. You know what a perfect Jullien, at concert conducting Brown is, and how fond of getting up musical parties. It was this talent of his which suggested the notion to my mind. However, it is all settled. Master Jones is to take the drum and pan-pipes, Robinson will be trombone, and Lyte Brown will lead off with his violin.

Olivia.-And our parts will be the easy ones of listeners in our snug warm room, while our gentlemen friends are scraping and thumping away in the cold.

Lillie.-Just so. But hark! I hear them coming. We meet in this room to make our final arrangements.
[Goes to side.

## Yes, here they are.

(Enter Brown, Jones, and Robinson, car. rying Music Books and Instruments.)

Note.-Where the real things are impracticable, it will do to substitute imitations; the performers singing in such a way as to suggest the instruments required to be used.
(They are arrayed in great coats, and muffled up to represent street performers of "waits." After the exchange of bows and the usual compliments),

Brown.-Well, here we are; don't you think, ladies, that twe look our parts well?

Olivia.-To admiration. But then, you know, a musician is not usually tested by his looks.

Brown.-Oh! its all right! we have had a jolly practice. Haven't we boys? down yonder in an out-house, adjoining the dog kennels.

Jones.-And the best of it was that, although we went twice through all our pieces, we were never discovered.
Olivia (archly).-No, folks mistook your performances for the howling of the dogs.
Robinson.-Oh! But, Miss Olivia, you are such a quiz. Come, come, time flies, let us see what has to be done.

Brown.-Yes. Well, I think that as we have had so many previous consultations, nothing remains to be settled. After supper, we repair to our posts. You, Miss Lillie, will give the signal when all is ready, by placing your candle in the window. Is there anything else, lads?

Jones and Robinson (together).-Nothing, I think.

Olivia.-Except that as it is a seasonably cold night, I shall go and warm myself by roasting a few chesnuts.

Omnes.-Then, mind you don't burn your fingers! Ha! ha! ha!
[Bows and exeunt. Scene closes.

## Scene II.

An Ante-room, with a door at the back to open and shut. Dark.
(Enter, as from Bed-room, Sir Anteer YelLowleaf. He is attired in a long dressinggown and nightcap, and has a rather decrepid and worn-out look. He carries a candlesticle, or night-lamp, in his hand.)
Sir A.-Ugh! Ugh! (coughing.) Oh dear! Oh dear! Ugh! ugh! I'm atraid I'm not getting younger. I can't sleep. These relatives of mine are, no doubt, very good people, and mean well to me, but, ugh, ugh, they have put me into a room that is haunted. Not with one ghost, but with a dozen. I can't sleep, do what I will. There's a
noise in the chimney. There's another behind the wainscoat. The casement keeps up a continual rattle; and the bedstead creaks like that pair of Hessian boots which I threw last year at the head of Mumbo Jumbo, the Nadoub of Hubbaboo. Even the lamp spits and splutters as if it was a frying. pan full of dripping. And of all things in the world, I like quietness-especially of a night. I don't like to hurt the feelings of these relatives of mine, who, I've no doubt, are very good people, and mean well, or I'd ask them to let me have another room. Well, I must try again to get to sleep, for I'm as tired as a dog-as the saying is: ugh! ugh!
[He retires into the room while speaking. Lillie and Olivia peep on from opposite corners, and then stealthily approach each other. They speak in whispers.
Lillie.- TTis now quite midnight, and I think our friends may approach and commence their serenade. What does your watch say?

Olivia (looking at her watch). - A quarter past twelve. Yes, do, for goodness sake, let them begin.

Lillie.-By all means. I will go and give the signal. No doubt, our good uncle is in a sound sleep. Let us be careful not to wake him.
Sir Anteek Yellowleaf puts his head out of the door, projecting the rays of his lamp in
every direction. every direction.
Sir A.-I feel certain I heard something. What could it be ? If I was not thoroughly conscious that these relatives of mine were good people, and meant well to me, I should be apt to think they were plotting to destroy my night's rest.
[He comes out. Ugh! ugh ! ugh ! I can't get to sleep. I've tried-and tried-and tried again. But, no. There I am staring, wide awake, like a wax figure. But it won't do. If I lose my night's rest I shall be ill to-morrow, and that will never do, with the amount of business on hand that I have. Here goes, then, to make another attempt. I do hope I shall be more fortunate this time. Ugh!ugh!
[Exit into Bed-room.
Music outside heard, at first faintly, and then. loudly. SIR ANTEEK again appears at his door in a great passion. (The music should be loud enough here to render his voice inaudible, or nearly so.)

SIR A.-Now, this is too bad! Some rascally " waits!" What can I do to get rid of them? I'd bribe them, only I fear that that would make them play louder at the next house. Ugh! ugh! Oh, this is little short of felony. Oh, a lucky thought!
[He retires into the room, and returns with water-jug.
I'll fling this at the head of the leader. I'll be bound that will quiet him.
[Goes out at side. Crash heard. Music ceases.
SIR A. returns, looking pale and angry.]
Sir A.- I hope I did'nt hurt him, but that's his business. To be disturbed in such a way; and at my time of life! too bad! too bad! ugh! ugh!
[Exit into chamber. Scene closes.

## Scene III.

A Breakfast Parlour. Lilise and Olivia seated. A vacant arm-chair near the table.
Lillie.-Well, dearest, and what did you think of our friends' performances last night?

Olivia.-Oh, delightful in the extreme! But, do you know, love, I am at a loss to account for one circumstance.

Liluie.-Indeed! What is it?
Ouria.-Why, either the tunes were so sleep-inducing that I went off into a slumber before they had played five minutes, or the music came to a sudden stop.

Lillis.-How very surprising, to be sure! My own impressions exactly. But we shall see our gentlemen amateurs this morning, and receive their explanation of the circumstance.

## [Bell heard.

Ah! there is dear uncle's bell. He will be down in a moment. Let us be silent as to the serenade, until we have observed what kind of impression it may have made upon him.
(Enter Sir Anteek Yellowleap, leaning feebly upon a walking-cane. Lillie and Olivia advance eagerly to meet him, and conduct him to his arm-chair.)
Liluif.-Dearest uncle, we hope that you slept well, and that your night's rest-

Sir A (interrupting her).-Nota word, my dear neice, of last night-not a word. Oh dear, ugh! ugh! I did'nt sleep a wink-
[Lillie and Olivia exchange glances.
At first, from fidgettiness-and then, oh, dear! from remorse

Olivia.-Remorse! uncle!

Sir A.-Of conscience! Yes, I fear that I have killed somebody. I fear-ugh ! ugh ! -my poor neices-that your old uncle is a homicide!!!

Lillie and Olitia (together).-How very dreadful!
[Enter a Servant, who announces Masters Brown, Jones, and Robinson, in their usual attire. After which,
Enter Brown with a cloth tied over his head, supported by JONES and ROBINSON.]
Sir A. (aside).-Who are these? In stature, they remind me of the musicians of last night. Pray, heaven, it may be so.

Brown.-We have intruded upon you, Sir, and upon these ladies, in order to present the earliest possible apology for the disturbance-which our well-meant-but, as it would appear, ill-timed music caused-

Sir A (rising).-Then you are the musicians of last night?

Brown, Jones, and Robinson.-Weare. Sir A.-And I did not kill anybody?
Brown.-No, sir, only bruised in a slight degree-your very humble servant.

SIR A.-Good! Then, 'tis I who owe you an apology; for I perceive that your excellent intention was to honour me. I am sorry that the natural irritability of a warrior at my time of life led me to appreciate your performances so unworthily. If you will forgive me-
[They approach, and shake hands. we will be friends. At any rate-if I dare invite you to breakfast in a house not my own, our fair hostesses will excuse the freedom ; and if our neighbours here will excuse us also, all may yet be well. While they are considering their verdict, we will sing them an old air, which will awaken memories of the past, and give to the old friends who are present a watchword for the future :-
247. auld lang syne.

Should auld acquaintance be forgot, An' never brought to min'?
Should auld acquaintance be forgot, An' days o' lang syne?

## CHORUS.

For auld lang syne, my dear, For auld lang syne;
We'll take a cup o' kindness yet, For auld lang syne.
We twa hae run about the braes, An' pou't the gowans fine;
But we've wander'd many a weary fit, Siv' suld lang syne.

For auld lang syne, \&c

We twa hae paidl't $i$ ' the burn, Frae mornin' sun till dine;
But seas atween us braid hae roar'd Sin' auld lang syne.

For auld lang syne, \&c.
An' here's a han', my trusty frien', An' gie's a han' o' thine;
We'll take a right guid walie waught, For auld lang syne.

For auld lang syne, \&c.
An' surely ye'll be your pint-stowp, An' surely I'll be mine;
We'll take a cup o' kindness yet, For auld lang syne.

For auld lang syne, \&c. New Verse.
And now this Christmas time has come, And old friends gather here,
May Christmas meryy to them be, And glad the coming year.
(See 262.)
For auld lang syne, \&c.

## 248.

ENIGMA.
In olden times, when the warrior laughed
To scorn all cowardly letter-craft,
And learning found no place to dwell, But in the silent convent cell;
A monk once sate in his cloister lone,
And before him grimmed the ghastly bone
Of a human skull. Horrid and grim -
"Twas all that was human there, save him. From early youth, in that cell so cold,
'Mid quires and tomes and dungeon mould, Hs had writ;-and now he was waxen old. Many a year since the task begun-
The monk was old, and the task undone.
"'Twill never be finished, this book," sighed he,
"Till this skull beside its comrade be,
To preach to the brethren, eternity."'
He dropped a tear; but my first was there, With face upturned, and smooth, and fair,
To receive that tribute to fell despair.
In regal halls my first doth dwell, As well as in the convent cell;
And nobles proud, or sage alone,
Approach not nearer to the throne,
Soon came the peal of the vesper bell, The friar went out of his lonely cell; And his sandalled feet on the echoing floor, Resounded along the corridor. [door,
When the monk returned, through the opening He saw what he never had seen before.
My second was there;-the chance it took
To run over the leaves of the mystic book,
When none was near. It fled, but then
It left a lesson that learned men
Oft need to learn: and the friar smiled,
As he spoke to himself in accent mild:-
"I've learned my lesson to-day," quoth he;
"And it car.e when 'twas needed much by me." And he smiled again, for he knew the wise
May learn from the humble, that fools despise.
My whole, a toy, though built by crafty tools, Can only fill with wonder gaping fools ;
Designed for mimic spheres, where actors wage
Wars of proud conquest on their bloodless stage.
[A correspondent wishes to obtain the answer to the above. We have not yet received the answer to the Charade 27. What are the
"Cupboardnniane" about:]

## 249. COUNTY CONUNDRUMS.

1. Why would Dorsetshire suffer less from a long drought than other counties?
2. Why should you go to Fifeshire to cook your fish?
3. Why would Kent make a good lunchbasket?
4. Why is the Isle of Wight a good place to go to for milk and excreise?
5. What is the difference between Northumberland and Norfolk?
6. Why would the people of Nottinghamshire have the advantage in case of a deluge ?
7. Why is Suffolk like Cyclops?
8. Why is Sussex the most warlike county ?
9. Why ought the people of Somersetshire to be clean and healthy?
10. Why is Yorkshire like an emigrant ship?
11. Why would Warwickshire suffer less from a scarcity of corn than any other county?
12. In what would Shropshire and Somerset shire have the advantage over other counties in time of war?-(See 263.)
T. C.
13. PHENOMENA OF JANUARY. -The most striking phenomena of the season are known to us under the names of Frost and Snow. (See 131 and 136). At this season it is usual to find the brooks - which lately prattled a mournful music amidst the naked trees, and bore upon their bosom towards the ocean the brown leaves of autumn -sealed up and congealed into silence. During the day a haze obscures the oblique rays of the sun, but at night the watery vapour being removed by the frost-
"The full ethereal round, Infinite worlds disclosing on the view, Shines out intensely keen; and all one cope Of starry glitter, glows from pole to pole"
14. The birds, which at other times found a plentiful, supply of food in the open fields find everything frozen and congealed into hard masses. The seeds and berries which were formerly accessible to their horny beaks, are so no longer, owing to the freezing of the water in the ground, or the snow which hides their food. Hence the feathered tribes are driven by hunger to approach the dwellings of man, where the heat generated by fires, and radiated from his habitations, tends to thaw and soften the ice-bound surface around, and whence unfrozen nutrition is continually thrown at the doors. The wild fowl, driven from the chilly north, where the streams on which they were wont to swim are no longer liquid, take a southward flight, and in flocks of singular shape astonish the observer. The circumstance upon which these actions depend is the liability ot water, when deprived of a certaiu
amount of heat, to pass from the state of vapour or fluid to the solid form. Snow is watery vapour suddenly congealed, while ice is liquid water frozen. In passing from the liquid to the solid form, water is a remarkable exception to the law that all bodies expand when heated, and contract when cooled; inasmuch as water, after cooling to a certain degree, begins to expand, and continues to do so till it is changed and becomes ice. To illustrate the general law: -Fit exactly a rod of iron, when cold, to a hole in a piece of metal or stone, then heat the iron, and you will find that you will be unable to make it enter the aperture which previously admitted it. Again, having heated a bar of iron to redness, take it from the fire, and lay it upon the flag-stones, or on a brick floor, and place close to either end of the bar a brick or other body having a plain surface, which will fit against the extremity of the piece of iron; if you wait a few minutes, till the bar is cold, you will observe that there is an interval between the ends of the bar and the surface of the bricks, which did not exist when the bar was hot. All substances, except water, thus expand with heat, and contract with cold. But what is cold? And what is heat?
15. Heat is a peculiar influence of a positive character, which can only be judged of by its effects upon matter ; Cold is negative heat-the absence of warmth. We can only judge of heat by its effects, and we are accustomed to measure its intensity by the power which it possesses to expand some substance exposed to it. Thus, in the common thermometer we use the liquid metal mercury, to indicate the heat of a hot bath, or of the temperature of a room, because we know that mercury is expanded by heat, and contracts if heat be removed. The degree of contraction urder similar influences varies in fluids, but not in gases. Chlorine, hydrogen, oxygen, carbonic acid, \&c., are equally affected by exposure to heat, but alcohol is affected six times as much as quicksilver, and lead will expand, under the same circumstances, three times as much as iron.
16. But to this general law of expansion by heat, and contraction by its removal, water is a remarkable exception. Procure a Florence flask (which may be purchased for a few pence at any of the oil-shops), and pour some water into it till it is nearly
filled, marking with a file upon the neck the exact height at which the fluid stands. In a deep basin or jar, provide a freezing mixture, composed of snow (or broken ice) and salt, in which let the flask be buried up to the neck. If the water which you have poured into the flask be above 40 deg. of Fahrenheit's thermometer (as it will be if it has been kept in the house for a few hours before using), you will observe that it begins to contract till it is reduced to that temperature, when it will begin slowly to expand, and continue to do so till the fluid passes into the solid state. The increase or diminution of the volume of the water will be indicated by a rising or falling in the neck of the flask. To render this experiment complete, a small thermometer should be placed in the water, to indicate the changes of temperature, so that the observer may note with accuracy the corresponding alterations. From this experiment we learn that the greatest density of water is attained at a temperature of 40 deg ., and that whether heated above that temperature, or cooled below it, the expansion will be similar. At 48 deg. the water will occupy the same space as its ice at the temperature of 32 deg. If we take a bottle quite full of water, at the temperature of 40 deg., and close it so that no fluid car escape, the bottle will be burst by exposure to heat or to cold; for both would increase the volume of the liquid. From this it follows, that ice is lighter than water at any temperature below 48 deg. of Fahrenheit's thermometer, and it will be shown that this increase of volume produced under the influence of frost, is a nost beneficial arrangement of the Divine Ruler of all things.
[This freezing mixture is most active in the following proportions:-Snow, or pounded ice two parts; salt (known to the chemist as muriate of soda) one part. Ice can be purchased from most of the confectioners at all periods of the year, but should there be a difficulty in procuring it,the following freezing mixture may be used:Muriate of ammonia, five parts; nitrate of potash five parts; sulphate of soda, eight parts; and water, sixteen parts.]

254, If water, like other liquids, continued to contract and to increase in density until it assumed the solid form-our lakes and large bodies of water, instead of being superficially frozen in winter, would be hardened into solid masses of ice. The heat from the lake is abstracted by the cold
winds which blow over its surface; and the chilled particles being more dense would descend, allowing other and warmer portions of the water to rise and be exposed to the frosty air, till the whole mass of the water was reduced to 32 deg., when it would suddenly freeze-to the destruction of most of theliving thingstherein. Butthisis prevented by the phenomenon of which we have been speaking ; for, as soon as the whole mass is cooled down to 40 deg . there is no changing of position in the particles, since those on the surface which are rendered colder now become lighter than their fellows ; so that the cold water actually floats upon that which is comparatively warm. Water being a bad conductor of heat, the warmth of the lower stratum is not removed, though the surface may be a sheet of ice. Moreover, ice being also a non-conductor, the cold winds may continue to blow without avail ; since the deep strata of water are protected from cold, and remain at the temperature of 40 deg., whatever may be the cold of the surrounding air.

255 . Though the heat of water, when boiling, varies considerably, in proportion to the density or rarity of the atmosphere, the freezing point remains always the same, and the chemist avails himself of this circum. stance in the construction of the thermometer.
256. The expansion of water, which has been described, is the cause of the bursting of pipes and closed vessels during the winter. It is related, indeed, that cast-iron bombshells, thirteen inches in diameter and two inches in thickness, having been filled with water, and their fuse-holes firmly plugged with iron bolts, were burst asunder when exposed to the severe cold of a Canadian winter; thus demonstrating the enormous internal pressure to which they were subjected by the expansion of water in freezing. (See 136).
257. Herein we discover a great important agency, which produces great benefits to the husbandman. During the autumn and parly winter months the soil receives into its interstices the water from the clouds, which creeps into every crevice in every clod ; when frost comes, the water expanding, pushes the particles asunder, and breaks the lumps into crumbling mould. The water, too, which during the long year
has been collecting in some hidden cavity of the rock, suddenly, under the influence of cold, assumes a glant power, and hurls the mass from the mountain sides. The flagstones and pavements are tilted up by the same mysterious power, and flakes of the ornamental plaster on our walls are pealed off.
258. Ice has a great antiseptic power; that is to say, animal substances contained in it are prevented from decay. In 1803 the body of a mammoth-a race of animals now extinct-slowly appeared from a mountain of ice, in which it had been preserved from decay for several thousand years; the flesh was in excellent preservation, however, and was eaten by bears, wolves, and dogs, with eagerness. During the winter, in the northern parts of Russia, meat is frozen and preserved in ice, and so sent to market in casks; and in Scotland salmon are packed with frozen water, which is an article of export from the lakes of North America.
259. We will now proceed to speak of snow; and first let us observe how beautiful and varied are the forms of its flakes, when looked at through a magnifying glass, or microscope. (See 136.)

How light and gracefully they fall, and how hilariously we greet the snow storm!
"Through the hushed air the whitening shower descends,
At first thin wavering ; till at last the flakes
Fall broad and white and fast, dimming the day
With a continual flow. The cherished fields Put on their winter robe of purest white."
How beautiful the naturalists of Scripture describes it. too:-" As birds flying he scattereth the snow, and the falling down thereof is as the lighting of the grasshoppers, the eye marvelleth at the whiteness thereof, and the heart is astonishod at the raining of it."
260. Snow is watery vapour suddenly fro. zen. Occasionally in Lapland the phenomena of the formation of snow is witnessed when the door of an apartment in which persons are assembled is suddenly opened, and a blast of cold air almitted, the watery vapour exhaled by their respiration being instantly frozen into flakes. Snow is a bad conductor of heat, or cold, and therefore acts as a most valuable covering for vegetables and seeds; wheat continues to grow beneath its covering, though every blade would be cut off if exposed to the frosty air.
261. SOLUTION OF THE GEOMETRICAL PUZZLE (245.)


Divide each side of the square into four portions. By drawing lines across each way to these points you produce sixteen of the squares. Unite the points by which the diamond is formed: within which you will find a square one quarter the size of the first. Next draw a diamond within this quarter-sized square, and by drawing lines-like a Saint Andrew's cross-through the whole figure, you have the points for the seventeenth square, as in the figure.
262. ANSWER TO THE ACTING CHARADE (2t6).-Band-age.

## 263. SOLUTIONS TO THE COUNTY CONUNDRUMS (249.)

1. Because there is always a large Poole in it.
2. Because you will always find a Kettle there. 3. Because it has a Lydd to it, and always contains a Sandwich.
3. Because you'll always find $\operatorname{Cow}(e) s$ and a Ryde there.
4. One has a Newcastle every day, while the other has a Castle Rising.
f. Because they have a New ark there.
5. Because it has but one Eye.
6. Because there is always a Battle there.
7. Because they are supplied with Wells, and have a Bath every day.
8. Because it has a large Hull well peopled.
9. Because there is Nuneaton (none eaten) in it.
10. In having each a Wellington.

## 264. TALK WITH TIME.

## BY MRS. SIGOURNEY.

Time, old Time, with the forelock gray, While the year in its dotage is passing away, Come, sit by my hearth, ere the embers fail. And hang the scythe on yonder empty nail, And tell me a tale, 'neath this wintry sky,
Of the deeds thou hast done, as its months swept
by.
"I have cradled the babe in the church-yard wide
From the husband's arms I have taken the
Thave cloven a path through the ocean's floor, Where many have sunk, to return no more; I have humbled the strong with their dauntless
breast.

## And laid the old man on his staff to rest!

"I have loosened the stone on the ruin's height, Where the curtaining ivy was rank and brightI have startled the maid on her couch of down,
With a sprinkle of whitemid her tresses brownWith a sprinkle of whitemid her tressesbrown-
I have rent from his idols the proud man's hold, I have rent from his idols the proud man's hold,

No. 3.
"Is this all? Are thy chronicles traced alone In the riven heart and the burial stone?" "No. Love's young chain I have twined with
flowersHave awakened the song in the rose-crowned
bowers-bowers-
Have reared the trophy for wealth and fame,
And paved the road for the cars of flame!
"Look to the child-it hath learned from me The word that it lisps at the mother's knee; Look to the sage-who from me hath caught The kindling fires of his heavenward thought; Look to the saint-who hath nearer trod Toward the angel-host at the throne of God.
"I have planted seeds in the souls that bear The fruits of heaven in the world of careI have breathed on the tear till its orb grew
bright. Ask the di
Ask of thy heart drops in the fields of lightA germ so pure, hath it e'er confest
The so pure, or a tear so blest."
Ane clock struck twelve, from the steeple gray, And, seizing his hour-glass he strode away; For I saw the at parting, I feared to clasp, For I saw the scythe in his earnest grasp, And read in the glance of his upward eye.
His secret league with eternity.

## 265. FRAUDULENT

ADVERTISE-MENTS.-A correspondent obliges us with the following copy of an advertisement, and the reply thereto:-

"PHotography Superseded by METAL-OGRAPHY!-A few pence will purchase the necessary apparatus. Instructions in this beau| tiful art sent to any address (on receipt of |
| :--- |
| twelve postage stamps), by | , Lincolnshire."

The answer, in return for the postage stamps :-

## "Instructions for a New Method of

 ENGRAVING.-A Receipt for Preparing the Metal. Put into a crucible two ounces of Zinc, one ounce of Bismuth, and one ounce of Lead.The Process.-Paste, a piece of writing paperon the bottom of a china dish and on the bottom of a china dish, and let it dry. Then, with common writing ink, draw a portrait map, or engraving on the paper, and while it is wet, sprinkle some very finely powdered gum arabic over it. When dry, brush nff with a camel's hair pencil all the powder that does not adhere, and pour the fusible metal upon it. In this way. a copy of the drawing is obtained, impressed on the metal. If any gum adheres to the metal, it may be removed by immersing the cast in slightly warm water. By using common printer's ink impressions may be taken from it, all of which will be truefac similes of the drawing on the paper. Two different impressions can be taken from the plates of metal; the first, by hand pressure, would produce the black parts
in the original white in the proof, but if a in the original white in the proof, but if a copper-plate press supplied with a Pautographer be used, the result in the proof would be equal to the original. Great exactness may be had by pasting an engraving or map on the dish, and inking the lines afresh, and then proceed-
266. THE REIGNS OF ENGLISH SOVEREIGNS
Compared with the Ybars of our Lord, and Corresponding with the Dates of Hollinshed and others; instantly useful for Readers of History, and any Ancient Records.


A FAMILY REPOSITORY.


It was the usual custom formerly to reckon the reign of each Sovereign by the Ecclesiastical Year, which terminated on the 24th day of March (the last day of the reign of Queen Elizabeth of blessed memory) ; but since the year 1752 all dates of records, as well as Parochial Registers, have been made by Act of Parliament to accord with the Civil Year, commencing on the first of January.

The Usurpation of the throne of Oliver Cromwell continued about twelve years after the Martyrdom of King Charles I. Richard Cromwell succeeded him; but either through incompetency or indisposition to rule with an iron hand, he soon resigned all power, and retired to a private life; thus enabling Monk, the late Protector's Commander-in-Chief, to favoar the restoration of England's lawful Monarch, Charles II.
The reign of King Edward V. was the shortest, and that of King George III. the longest in the annals of England-the former only comprising a few months, the latter extending beyond fiftynine years. He ascended the throne near the close of the year 1760, and died in the first month of 1820 .
267. THE CHUCK OF BEEF is the part that is taken from under the fore-leg and shoulder, it contains about two ribs and necessarily a part of the chine, or back-bone. Generally speaking, it is baked over a Batter Pudding, made thus: take three eggs, a little salt, a quart of milk, and enough flour to make it into a nice consistent batter. Put it into a baking-tin about three inches deep; it will take from ten minutes to a quarter-of-an-hour to the pound to bake, according to the heat of the oven (see 205). When cold it may be fried in slices (see 181), or as bubble-andsqueak (see 190), or hashed (see 187). But being rather a coarse joint, probably the best way to cook it would be to have steaks from it one day, fried with some onions cut into slices (see 209), on the next a beefsteak pudding (see 202, minus the larks), and the following day a TOAD-IN-THE-HOLE, thus : make a batter as directed above, cut the beef into rather thick slices, well season with two of salt and one of pepper, and stick the pieces of meat in the batter, and send to the oven; it will take two hours to bake. If there is any left after these processes, hash it. The bones in the stock-pot.
268. THE LEG OF MUTTON PIECE is the middle cut of the shoulder or forehand of the ox; it is a coarse piece of beef, and may be cooked the same as the chuck (267). It is the part that is generally potted, thus : cut off as much as you may require, say 6 lbs. ; rub it with a little finely powdered saltpetre; let it lay twenty-four hours; then wash and dry it ; cut into slices; put it into an earthern pan with a little water ; lay four or five snips of butter on the meat, and tie it down with a piece of paper. Bake it until thoroughly tender; take it out and strain off the gravy ; take trom it all the fat and sinews; beat in a mortar with a little salt, pepper, and three or four cloves; add in the pounding the butter that cakes upon the gravy, if necessary, to make it stick together; add a little more butter; when thoroughly pounded put it into pots-old currant jelly pots are just the thing for it-when filled set the pots in the oven for five minutes, and pour over the beef a little clarified butter.
269. If you should have any cold beep hieft, it may be potted in this way :-

Cut it small; add to it some melted butter, a teaspoonful of anchovy sauce; season with pepper and salt, two and one; well pound it in a mortar ; then put it into pots and cover it with the clarified butter as above. Don't forget the stock-pot.
270. THE LEG AND SHIN OF BEEF. -These parts are generally put into the stock-pot, and I should say it is the best thing to do with them; but there are people who think otherwise, and therefore I will give you a receipt How to STEW $\Delta$ leg or shin of beef. Put it into an earthern pipkin, having first cut it into pieces. Take two large onions, one carrot, one turnip, a head of celery, four or five cloves, some pepper and salt, then stew seven hours. Have some more carrots, turnips, onions and celery ready boiled; cut them into nice square pieces; then take the meat out and strain the liquor through a sieve ; cut all the sinews out; lay the meat in the middle of a dish, the cut vegetables round it, then pour over the gravy, and serve.
271. THE CLOD AND STICKING PIECE may be stewed (see 183), made into a pudding (see 202), or steaks-and the meat from being juicy makes it a famous toad-in-the-hole - (see Chuck, 267), or potted (see Leg of Mutton piece, 268); but I think the stock-pot is the best place for them, because then there is no part of them wasted. You may make beef tea, gravy soup, ox tail, vermicelli, maccaroni, and, in fact, nearly all kinds of brown soups from them.


## OX HEART.

272. OX HEART.-Choose the fattest and finest heart you can ; cut off the neck and pack waxy parts. Thoroughly wash it in cold water; then make a stuffing of suet, parsley, sweet margerum, lemon peel, pepper, salt, and nutmeg, the yolk of an egg;
chop very small and well mix together. Put the stuffing inside the heart, and tie it up tight in a cloth. Boil in plenty of water for an hour, then take the cloth off; run a steel skewer right through the thick end of the heart to fasten the worsted to ; roast it an hour and a-half. Serve with a rich gravy made thus: a pint of stock gravy, a gill of port wine, and two teaspoonfuls of currant jelly, seasoned with salt and pepper two and one. Pour this gravy into the dish, then pour three or four tablespoonfuls of melted butter over the heart, and serve. Currant jelly should be on the table; when cold it may be hashed in the same sort of gravy. To hash, cut the heart into slices. The heart should be placed in the middle of the dish, on the thick end; in short, when dished, it puts us in mind of a diminutive mountain, with a valley of melted butter and rich gravy. To carve it, it will be necessary to turn it on its side, with the thick end towards you, cutting wedge-like slices not too thick or too thin.
273. OX TONGUE.-To pickle an ox tongue, get the largest and finest; rub it well with salt; let it lie for four or five hours ; beat two ounces of saltpetre very fine, and rub the torgue well with it, then mix a quarter of a pound of bay salt, and an ounce of salt prunella, pound them in a mortar very fine and rub them over the tongue. In this pickle let it lie three or four days; then make a brine of salt and water; continue adding salt until a new laid egg will float in the brine; put in two ounces of saltpetre and a quarter of a pound of bay salt. Boil this brine for a quarter of an hour, skim it well, and when quite cold put in the tongue. Let it lie in this pickle a fortnight or three weeks, when it will be fit to boil. It should be steeped in cold water all night before you want to cook it. Put it in plenty of cold water, and let it boil from two to three hours. When done, peel it, and run a steel skewer from the root along the underneath so as to prevent anyone who may happen to carve it from cutting it in two in the middle, which they are very likely to do unless prevented by the skewer.
[I may here relate an amusing occurrence that took place at my table one day. An old gentleman, a friend of mine, came to dine with me at Christmas. I have been in the habit of having a real old-fashioned English dinner on
that day-viz., boiled turkey and tongue, a roast rump of beef, and Yorkshire pudding, plum pudding, and mince pies. Well, this old friend of mine sat opposite the tongue. I asked him 1 he would be kind enough to assist it; he being very fond of tongue and of carving it, tspecially for himself, instantly said he would be mosi happy. I got on with my turkey, and, on looking up, to my surprise I saw him cutting with all his might to try to cut through the skewer, whick he fancied to be a bone, for he said "Mrs. B-, I was not aware that a tongue had a bone in it before." Of course I do not intend such bones as those to go into the stock-pot.-M. B.]
274. A COLLARED TONGUE. - It should be pickled as above, then boiled three hours. When done, beat it, and cut out the pack, wax, and grisle. Trim the root; roll it round, with the top part of the tongue outside, and while hot place it in a tin mould about 7 inches in diameter, and 7 in height, and then press it by putting on the top one or, if possible, 2 half-hundred weights; let it stand until it gets cold; then take it out of the mould. You will find it in a solid mass, and perfectly round, and is a beautiful dish to place on a sideboard for a wedding breakfast or evening party; it should be cut in slices off the top.


HONET-COMB TRIPE-THE BEST FOR BOILING.
275. TRIPE.-Take 6lbs. of tripe-the thick is the best-boil it gently in milk for two hours. In the meantime, peel a dozen large onions, and boil them in water gently until they are done thoroughly. Add a little thickening-flour and water mixed thin -into the tripe saucepan; then serve in a soup tureen, with the onions on the top, being careful not to mash the onions; send a little nice melted butter (see 207) in a
butter-boat, and some nice mealy potatoes steamed (see 201).


THIN TRIPE-THB BEST BOR PRYING.
276. TO FRY TRIPE, cut it into squares of about three inches. Make a nice batter of (see 205); dip the pieces in, and then fry them in boiling fat (see 198). Peel twelve large onions, and boil them gently for an hour ; then strain the water from them ; dip them in the batter and fry them (see 184); then place a bit of tripe and onion alternately round the dish, the tripe resting on the onions; serve perfectly plain, or with a little fried parsley, which some people like.


OOW-HERL.
277. COW HEEL or OX FEET may be dressed precisely the same as tripe, viz.: -Boiled, and served with onions and melted butter, or Fried in boiling fat, as for fried tripe. But the more common way is to boil it plain, and serve it with a sauce made thus : a little melted butter (see 199), two tablespoonfuls of mushroom catsup, one ditto of Harvey or Reading sauce, and a little mixed pickle, cut into small squares, which sauce must be poured over the foot in the dish.
278. BEEF SKIRTS.-This is very nice
broiled on a gridiron, being full of gravy, and very nutritious. But the best and most economical way to cook it is to stew it first; brown it in a frying-pan; then stew it as directed for the sirloin (see 183), and serve with stewed onions (see 184). The skirt likewise makes a good pudding, with a little kidney, an oyster or two, \&c. \&c. (see 202).
279. OX CHEEK. - The only way that the ox cheek ought to be cooked is to make it into soups, or to pot it. To make ox cheek soup, it should be boiled in enough water to cover it for two hours and a-half. Take it out and take all the meat off; cut it into squares, not too small. Having in the meantime prepared a nice soup, as directed for ox tail (see 179); then add the square pieces of meat, and serve. Put the bones, the remains of the meat, and the liquor it was boiled in into the stock-pot, being of more service there than cooked in any other way. To pot the ox cheek, see the directions given for the leg of mutton piece.
280. THE MARROW BONES.-Put a bit of paste, made with flour and water, over the end where the marrow is visible; tie a cloth tightly over them; take the paste off before the bones are sent to table ; serve them on slices of dry toast; they require boiling two hours.
281. TO SALT BEEF.-Let the meat hang a couple of days in mild weather, and four or five in cold, before it is salted or pickled; rub the meat to be cured in fine salt, then let it drain for a day, in order to free it from the blood; then immerse it in a brine, taking care that every part of it be covered; it may remain from one week to two, according to its size, or the degree of saltness required. The brine should be three gallons of spring-water to six pounds of salt.
282. BEEF A LA MODE.-Take slices from the chuck, leg of mutton piece, or the clod and sticking piece; four pounds will be sufficient to make a good sized dish; cut some pieces of fat bacon into long bits, an equal quantity of beaten mace, nutmeg, pepper, and twice as much salt. Mix them together, dip the bacon into some vinegar, then into the seasoning. Put the meat on in a pot quite large enough to hold it, with a pint of stock gravy, two large onions, a bunch of sweet herbs, a gill of port wine,
and some lemon peel. Cover it down very close, and put a wet cloth round the edge of the lid, to prevent the steam escaping. When it half done, turn it, and cover it up again. It should be done on a hot plate or a very slow fire, and will take from four to five hours to cook. When done, if there is not sufficient gravy, add a little stock gravy. Serve, with potatoes, and a nice mixed salad on table.
283. OX KIDNEYS.-From all the experience I have had, I have come to the conclusion that an ox kidney is not worth the trouble of cooking in any other way than in a pudding, with some good rump steaks, and a dozen or two of oysters in it. I certainly have seen it cut into slices, and broiled on a gridiron; but it must be so peppered, salted, and dressed up, that you would not discover that it is a kidney at all. It burns your mouth, and is savoury; but there is not the least nutrition in it whatever; in fact, I would not recommend any one to try it.
284. BEEF TEA. - Take about one pound of chuck of beef to a pint of water, let it stew gently by the side of the fire. Do not let it boil ; add one teaspoonful of salt, the same quantity of whole allspice and pepper. The meat must be fresh. In making all broths, the saucepan should be of such a size as to let the meat swim freely. It should be put into cold water.
285. BEEF SAUSAGES. - Take six poundsofbeef quite freefrom skin, gristle, and fat ; chop it very fine. Three pounds of fat shred very fine ; season it with two ounces of white pepper, a quarter-of-a-pound of salt, half-quartern of the crumb of bread soaked in water; mix well together, put it nto skins well cleaned, or press it into a ar. When to be used, roll it up about the isual size of sausages. A little allspice is a ̧reat improvement.
Having gone through as near as I can nake out every joint and part of beef, and lescribed the modes of cooking them econo-nically-not expensively, for that was rot my intention, as I proposed to myself o give common and economical receipts nly-I will now state what I consider $o$ be
286. THE ESSENTIAL QUALITIES JF A GOOD PLAIN COOK.-To be leanly in person is absolutely indispen-
sable-at least it would if you were to cook for me.

Keep all your utensils perfectly clean.
Regulate your fire according to the joints you may be going to cook during the day.

Recollect if you get your fire too small your meat will not be done; and if it is too large you are wasting the coals and spoiling
the joint.

Always in the morning get a bill of fare written cut of all you may be going to cook in the day, not forgetting the sauces and vegetables, all in the order they have to be served.

Never do anything by guess-work.
Mind that your plates and dishes are quite hot, your sauces not lumpy, or your gravies curdled.

Never let your meat stand and burn before the fire.

In fact, with cleanliness, attention, and good temper, your husband or employer will never have occasion to say the Almighty sends meat, and the - sends cooks.
287. SADDLE OF MUTTON. - To dress this favourite joint follow the instructions laid down for the sirloin of beef (see 180). Serve it perfectly plain. There should be currant jelly on table.


SADDLE OF MUTTON.
288. TO CARVE THE SADDLE OF MUTTON.-Cut from A to B-keep your knife sloping-not too thick. This is the prime cut. If it is required lean, cut from C to D ; if fat is required, cut from D to B. The fillet, which some prefer, is to be found underneath, cutting along the chine bone. Do not cut this joint too thin.
289. HAM.-For a ham weighing twelve pounds, boil it a quarter-of-an-hour to the pound, keeping it well covered with water. Peel the rind off, and powder over it some
baker's dressings, and a frill on the knucklebone and serve.
290. CALVE'S HEAD. - To scald a calve's head it will be necessary in the first place to purchase a pennyworth of rosin. Pound it up quite small; then after well washing the head in warm water, rub the rosin all over the outside until the hair is completely clotted together; then put from six to eight gallons of boiling water into a tub and immerse the head, letting it remain from eight to ten minutes, when you will find that the hair will strip off, which may be done with the back of a knife or scraper; after you have taken all the hair off it should be washed perfectly clean in cold water; cut it in two with a meat saw ; take the tongue and brains out, and lay to soak in a tub or pan of cold water.


CALVE'S HEAD.
291. TO BOIL CALVE'S HEAD.Tie it up in a cloth, and boil it for two-and-a-half hours in plenty of water. Tie the brains in a bit of cloth, with a little parsley and a leaf or two of sage. Boil them one hour ; chop them small; warm them up in a saucepan, with a bit of butter and a little pepper and salt; lay the tongue, boiled the same time, peeled, in the middle of a small dish; place the brains round it; have in another dish bacon or pickled pork.
292. TO HASH CALVE'S HEAD.Cut it into slices, flour it, and put it into a stew-pan, with some of the liquor the head was boiled in the day before, a little beaten mace, some salt, a few artichoke bottoms, parboiled, half-a-dozen oysters, a little flour to thicken it, an egg beat up in half-a-pint of milk; stir all together, and see that you have got it to its proper consistency ; and just before it is taken up put in some pickled mushrooms; if they are put in before they are apt to turn the milk; then serve in a hash-dish.
293. TO STEW CALVE'S HEAD.-

Bone it, and take out the eyes; make a forcemeat with 1 lb . of beef suet, and the same quantity of veal, two anchovies boned and washed clean, a nutmeg grated, a little thyme and the peel of a lemon; chop all these together, with some stale bread grated. Beat up the yolk of two eggs, and mix with them. Make part of this forcemeat into balls, then boil four eggs hard, two dozen oysters, and a dozen fresh button mushrooms, if they are to be got; mix these with the rest of the forcemeat, and stuff the head from where the bones were taken. Tie it up in a cloth; put it into three quarts of stock gravy, with a blade or two of mace; keep it close covered, and let it stew very gently for two hours; while the head is stewing, chop up the brains with some lemon thyme, parsley, and some grated nutmeg; mix it altogether with the yolk of an egg, as directed for the forcemeat; make them into balls, and fry them and the forcemeat balls in boiling fat (see 198). When the head is done, keep it hot, with brain-cakes and forcemeat balls, before the fire; strain off the liquor the head was stewed in, add a little sherry, make it quite hot in a saucepan. Put the head in a hot dish, pour the sauce over it; lay the balls and the brain-cakes round it.
294. TO ROAST CALVE'S HEAD. After having well washed it, take out the bones, and dry it well with a cloth; make a seasoning of beaten mace, pepper, salt, nutmeg, and cloves, and some grated bread; put this inside it where the bones came from; roll it up, run two or three skewers through it, and tie it round with tape. Roast it two hours ; baste it with butter ; make a nice sauce, thus-take a quart of stock gravy, thicken it with flour, and a dozen oysters, and a little bit of butter; cut the tape off, take out the skewers, place the head on a warm dish, and pour the gravy over it, with a slice or two of lemon on the head, and a little fried parsley. To fry parsley, wring it quite dry, picking the finest pieces you can get, put it into boiling fat, and let it fry until quite crisp (see 198.)
295. A ROASTING PIG. - A pig weighing from eight to ten pounds should be roasted for two hours; it should be stuffed, and the stuffing should be sewn in the inside, and should be made thus :-Take
three good-sized onions, and a leaf or two of sage, and a little bread crumb; chop them all very fine and putit inside the pig. When done, cut the pig down the back, having previously taken the head off and cut it in two. In the meantime take a quart of stock gravy and season it with salt and pepper, add a little flour to thicken, and pour it over the pig in the dish. When cold it may be hashed in the gravy that is left.


ROASTING PIG.
296. TO CARVE A ROAST PIG.-Cut the side of the pig in two from D to E ; then place the fork in at B; then cut from C to A , and round underneath the fore leg to C again, thereby taking the shoulder off. To take off the hind leg, follow the direction for the fore leg; then cut the remainder of the pig as directed for the first cut, with at least two spoonsfull of gravy on each plate.
297. HARE OR LEVERET.-In the the choice of hares, both the age and the freshness are to be considered. If the claws are blunt and rugged, the ears dry and tough, it is old; if, on the contrary, the claws are smooth and sharp, the ears tear easily, it is young. If fresh and newly killed the body will be stiff and flesh pale. A hare is never bad till it smells. To know a leveret from a hare, in the former there should be a knob or small bone near the foot on its fore leg.


## RUAST HARE.

298. TO CARVE A HARE.-First take off the legs; then cut the back in two at

D, A, and C. Some prefer to cut it along the chine bone, as dotted in the engraving, but I think the best way is as I have directed; then take off the shoulders, and split the head in two ; to hold it firmly stick the fork into the eye, when the operation will be more easily accomplished. Serve ample gravy on each plate.
299. TO ROAST A HARE.-Stuff it with a stuffing made thus:-Bread crumbs, suet, the liver parboiled, pepper, salt, grated lemon peel, parsley, lemon thyme, nutmeg, and the yolk of two eggs, all chopped and mixed together. Put it inside the hare and skewer it up; boil the hare for an hour, then take it up and roast it for an hour, thereby getting it thoroughly done without its being burnt to a cinder. Make a gravy by taking one pint of stock gravy, a little flour to thicken it, a tablespoonful of mushroom catsup, half a gill of port wine, two teaspoonsful of currant jelly, a little pepper and salt, and a bit of butter; pour it into the dish with the hare. It may be hashed in the same gravy ; mind and do not let it boil or it will go all to rags.
300. TO JUG A HARE. - Cut it up, and put it in an earthern pipkin, with one quart of stock gravy, a large onion stuck with cloves, pepper, and salt, and a slice of lemon ; cover it close; set it into a kettle of boiling water, which keep boiling three hours, until the hare is tender; then pour the gravy into a saucepan; put into it a glass of port wine and a little more stock gravy, if there is not sufficient; a little cayenne, and thicken with flour; boil it up, and pour it over the hare.
301. TO POT HARE.-Let it hang some days ; cut it into pieces; bake it with a little beer at the bottom of the pan, some butter at the top; pick the bones and sinews from it; having strained it from the gravy, beat it in a mortar with the butter from the top of the gravy, adding enough to make it very mellow ; salt, pepper, and pounded cloves. Put it into pots; set it in a slack oven for a few minutes, and pour over it clarified butter; let it stand to cool, then tie it down with paper, and it will keep for a long time.
302. THE BRACKLY PUDDING.-Half-a-pound of suet chopped fine, and a quarter-of-a-pound of rasins, stoned and chopped, two eggs ber: up, a little nutmeg
and ginger, two spoonfuls of flour, a little sugar to the taste; tie it up tightly in a pudding-cloth; serve it with sweet sauce (see 208).

Mary Bodein.

## 303. THINGS IN SEASON IN FEB-

 RUARY.-Meat.-House Lamb, Pork, Beef, Mutton, and veal.Poultry and Game.-Hares, Pheasants, Partridges, Woodcocks, Snipes, Turkeys, Widgeons, Fowls, and Tame Rabbits.

Fish. - Cod, Soles, Turbot, Skate, Whiting, Smelt, Tench, Carp, Perch, Eels, Plaice, Gurnetts, and Oysters.

Vegetables. - Savoys, Sprouts, Brocoli, Spinach, Carrots, Parsnips, Turnips, Celery, Endive, Onions, Potatoes, and Parsley.

Fruits.-Apples and Pears.
304. COOKERY OF THE "OLDEN TIME."-I have by me, in a manuscript book (which was highly prized by my grandmother), a number of Receipts for various relishable dishes, which I think are not generally known at the present time, and which may set some good housewives on the alert, to please their guests and humour their husbands. Some of these receipts are curious as illustrations of culi nary history. I will transcribe a few of them now, in just the language in which they are written in my late grandmother's note-book, and will send you some others at a future time.-J. G. Galbraith.
305. A Bratse for all Sorts of Butcher's Meat.-Take a kettle, and line the bottom with slices of bacon, slices of beef, and slices of onions ; then put in it your meat, and season it with salt, pepper, onions, carrots, sweet basil, thyme, and bay-leaves; lay over it more slices of beef and bacon; then cover it, and let it be done with fire under and over. You may, in this sort of braise, dress ribs of beef, muttonsaddles, and loins of mutton, buttocks of beef, or any other sort of coarse meat, which is put in a braise.
306. A White Braise.-Take a kettle, and line it with slices of bacon, slices of veal and some onions cut in slices; you may put in some turkeys or pullets, and all sorts of white meat; season it with salt, pepper, sweet basil, thyme, bay-leaves, and gariic, and then boil your meat. This braise may serve for all sorts of rolled meat.
[These appear to me to afford the foundation of very savory gravies, \&c.] J. G.
307. Calf's Liver in Braise.--Take
a calf's liver, lard it with thick bacon, and pus it to be done in braise ; this done, take it off, and let it drain; dish it up, putting a minced sauce over it, or a ragout made of sweet-breads of veal and mushrooms, and serve it up hot for entry.
308. Another Calf's Liver, the Lyon's Way.-Take a calf's liver, cut into very thin small slices and put it in a stew-pan, or fry. ing-pan, with a bit of butter and green onions cut small; put it over a quick fire, and season it with pepper and salt; let it have a good taste, putting in it a dash of vinegar, and strewing over it a dust of flour ; then moisten it with a little gravy; dish it up, and serve it up hot.
309. Chickens, the Citizen's Way.Take chickens, pick, draw, singe, and dress them; take an earthern pot, put water in it enough to cover them, and put it on the fire with a handful of salt; when the water boils, put your chickens in it ; do not boil them too much, and put a bit of butter in a stew-pan, with a pinch of flour, some nutmeg, pepper, salt, and oysters, if in season ; put your stew-pan on the fire, and thicken your sauce; which being thickened and well tasted, dress your chickens in their dish, and your oysters over them.
310. Another time, take a pinch of chopped parsley, the green of a few young onions, a little mint, and terragon, if you have it ; if you have nothing but parsley, still make your sauce; put a couple of anchovies hashed in it; cut half a lemon in little dice, squeeze the other half into the sauce; add a bit of butter, a pinch of flour salt, pepper, and a little water, and let your sauce boil; your chickens being enough, serve them with your sauce over.
311. Another time, put some endive with your chickens; when they are enough, give them three or four cuts with your knife; put them in a stew-pan, with a bit of butter, a pinch of flour ; put them on the fire, and wet them in the gravy your chickens are done in. If it is not thick enough, you may put a thickening of yolks of eggs.
312. Another time, boil them with onions, and put them in a stew-pan with a bit of butter, kneaded in flour, salt, and pepper; put them on the fire, with a little of the broth that the chickens are done in; thicken it with a thickening of yolks of eggs, and serve it hot for a first course.
313. Sheeps' Tongues in Papers. -Take boiled sheeps' tongues, that are good and palatable; slit them in two, and make a little force meat with a bit of veal, blanched bacon, and a bit of beef suet; season these with parsley green onions, mushrooms, sweet herbs, fine spice pepper, and salt, and mince all well together. Then cut some paper big enough to wrap in your tonrues; take off your force meat, and put some into your paper; put in it a tongue, and after that your force meat over the tongue, as you have done under it, and wrap it up as dexterously as you can; do the same with all your other tongues ; place them in a baking pan, and let them be baked in the oven, or under a cover; being baked, dish them up, and serve them up hot.
314. Double Tripes of Beef, the Polish Way.-Take some tripes, let them be well boiled, and very white and clean; put in a stew-pan a lump of good butter, green onions, and parsley cut small, pepper, salt, sweet herbs, and fine spice ; put in your tripes in pieces, the bigness of a hand; put them over a stove, and let them stew softly, to have a taste; then strew them with crumbs of bread; broil them on both sides, let them have a good colour; dish them up put brown melted butter over them, with a lemon juice, and serve it up hot.
315. Young Rabbits Rolled.-Your rabbits being skinned and boned, as those before, cut some bacon and ham in slices, and lay your rabbits on a table, with your slices one after another over them, viz., a slice of bacon between each slice of ham ; season them with salt, pepper, sweet herbs, spice, parsley, and chibbol; roll your rabbits, warp them upin a boulting-cloth, tie both ends with a packthread, and let them be done in a braise. Being ready, take them out to drain; dish them up with some of the braise for sauce.
316. Pigeons in Surprise, in large Onions.-Take young pigeons, blanch them well in hot water ; take large onions well blanched, and take out the hearts of them, so that the pigeons may have room in them; there must be two onions to one pigeon, the body being cut in two; garnish your stew-pan with slices of bacon; then order in it your onions, together with your pigeons, and season them with pepper, salt, cloves, and sweet herbs; lay slices of bacon and veal over them ; moisten them with a ladle of good broth, or hraise, and set them a stewing. Take care they be not too much done; when they are done, take them off, and let them drain upon a clean napkin, so that the gravy may come out, and wipe them dry with a linen cloth; being ready to serve up, order them in your dish, and put a little braise over them, well relished.
317. Egas Fried life Tripes-Boil two d: zen of eggs very hard; put them in cold water, peel them, and cut them in slices; put a ster-pan with a little butter on the fire, with an onion hashed very small, and, when your onion has fried two or three turns, put your eggs cut in pieces in it; wet them with a little milk, and season them with pepper and hashed parsley; mind they be of a good taste, and serve them hot for a by-dish.
318. Artificial Egas.-Take a quart of milk, and boil it in a pipkin, or stew-pan, stirring it a little while with a wooden spoon, till it is boiled away to half; take a third part of it in a dish, and put it again on the fire with rice, cream, and a little saffron; being thickened, and a little hard, make, as it were, yolks of eggs with them ; keep them lukewarm, and fill some eggshells, well washed with the rest of your milk; when you are ready to serve, put the yolks you have made in those eggs, and cover them with a little cream, but rather almond-cream. Serye them on a napkin. These are called artificial soft eggs in the shell. [Or serve in custard glasses.]
319. Egas with Bacon.-Have some
melted bacon, then get streaked bacon and cut it in as small dice as you can, and enoush, that there may be some for all your eggs; your small dice being made, put them on the fire in a stew-pan to melt part of their fat away; then put melted bacon, about a small ladle, in a stew-pan, with about a dozen of your small dice, stoop your stew-pan on one side and break one egg into it, keeping it as round as you can. The small dice will, if you take care, stick to the egg; mind also, that the yolk be not hard. Poach all the eggs you dress, one after another, the same way. If you have small dice left, put them in a stew-pan with a little cullis and gravy; if you have none left, cut some, and dress them as the former. Your small dice being fried, and having a good relish, put a lemon-juice to them, dress your eggs in their dish, put your dice above them, and serve them hot.

## 320. FISH STEW A LA KATHERINE.

 -Take three or four haddocks, soles, or plaice; salt the fish very slightly ; cut it in pieces, and then as follows prepare force-meat:-Take a little of the raw fish, a little liver, some parsley, a good quantity of bread crumbs, allspice, and mix with an egg into balls. Have ready now a stew-pan, in which you have previously to making your forcemeat put a large or small onion (according to your quantity of fish), cut in rings, a little parsley, a bit of butter as big as a chestnut, a quarter-of-a-pint of water; add cayenne and mace, each a pinch, ground ginger as much as would lie on a half-crown piece. When this has simmered a quarter-of-an-hour, and your forcemeat is ready, put in your fish, and lay the forcemeat balls on it. Stew gently lalf-an-hour; have the yolk of an egg well beaten; add to it the juice of four lemons; beat together well; add thereto a little of the boiling liquor of your fish to prevent curdling, and add this to the fish. One boil up more, and it is ready. Good, cold or hot.321. MOCK BRAWN.-Boil a pair of neats feet very tender; take off the meat, and have ready the belly piece of pork, salted with common salt and saltpetre for a week. Boil this almost enough ; take out all the bones, and roll the feet and the pork together; then roll it very light with a strong cloth and coarse tape. Boil it till very tender; then hang it up in the cloth till cold, after which keep it in a sousing liquor as below.-N.B. You can season to your taste with pepper and mace, adding little chopped parsley.-E. M.
322. SOUSE FOR BRAWN, AND FOR PIGS' FEET AND EARS.-Boil a quarter of a peck of wheat-bran, a sprig of bay, and a sprig of rosemary in two gallons of water, with four ounces of salt for half-an-hour, strain and let it get cold.-E. M.
323. PHENOMENA OF FEBRUARY. -There are not in nature any of those artificial divisions and distinctions which men for their convenience have established. Though we speak of day and night, of winter and summer, of spring and autumn ; and though we may contrast the features of these periods, yet there is no point of time at which we observe a natural division or line of demarcation between them. The daylight fades into twilight, and darkness spreads her cloak so stealthily, that we cannot say when she began "to hang her spangled mantle o'er our heads."
324. The light robes of spring slowly assume the gaudier hues of summer ; summer insensibly fades into autumn ; autumn unobserved is transformed into winter; while from out the snows of winter peep spring flowers again. In like manner we do not find that Nature is guided by the almanack in those changes of weather which are associated with particular months. If during a long course of time it was found that in January we had frost and snow ; in February a thaw ; in March wind: and in April that we were favoured with warm showers-we should naturally think of snow as the characteristic of January; of thaw as associated with February ; of wind as connected with March; and we should expect a repetition of showers and sunshine in April. But there are no days on which the changes from frost to thaw, from stillness to wind, from settled to changeable weather, can be expected to occur. The beginning of each month usually resembles, in its terrestrial phenomena, its predecessor. We generally experience a continuance of January weather at the beginning of Feburary, while at the end we are rejoiced to note the symptoms of approaching spring. At the beginning we have frost and snow, then comes a thaw, and this is commonly, followed by the "piping strains of March," which begin to blow ere yet February has expired. The commencement of the month is wintry; but towards its close the crocus,
and snowdrop, and the sallow, show their flowers; the ringdove begins to coo, and the ants venture forth from their curious habitations ; the new life of vegetation begins to be seen on warm sheltered banks. Hence the Saxons called February Sproutkele, because the cabbage or kale then began to fill its buds. The woodlark and the thrush begin their songs, and " the rooks commence their political arrangements for their cawing season ;" the mole enlarges his hunting-grounds, and the field-crickets open their doors as if to invite the approaching spring.
325. Yet, for the most part, February is a slow, dull time to those who do not possess such sources of pleasure in themselves as to be beyond the depressing influences of foggy air, sloppy paths, and dropping skies. The weather seems to have all the discomtorts of winter, without its compensatory advantages. The freshness of the frosty air, with its clear bright sky, no longer invigorates; a chilly mist hangs heavily in the atmosphere, and everything puts on a worn and melancholy aspect. The crisp snow has lost its brilliant whiteness, and has been changed by a thaw to a sloppy mass, as unpleasing to the eye as it is ungrateful to the feet. The walls of the house are covered with moisture like a heavy dew, and the cold seems more penetrating than it was when the thermometer was five or ten degrees lower. The birds sit disconsolate upon the trees, and even the robin is less cheerful than usual. From the leaves of the holly and the ivy, and from the twigs of the blackened trees, drops of icy water are pendent, and the moisture which falls from the leaves freezes as it splashes on the ground.
326. Some years ago a number of observations were commenced, the object of which was to record the temperature-as indicated by Fahrenheit's thermometer-at certain hours every day, with a view to ascertain in what degree the average or mean temperature of any given month might vary. From these observations it was discovered that there was little variation in the average heat or cold of any month, compared with itself through a long series of years. The mean temperature of February is 38 deg. Fahr., while that of January is scarcely 2 deg. lower. The average temperature varies
with position, and the observations to which allusion has been made, apply only to the neighbourhood in which they were made. This variation of temperature is regular with reference to position ; and the average temperature of any place having been ascertained during ten years, would be found to vary very little during the next ten years following. The climate of no two places can be said to be the same, even in the same latitude, but the weather has certain general characteristics in every place every year. There is, therefore, a regularity in what appears most irregular.
327. The sun's heat is the chief cause of warmth on the earth's surface, but there is a supply of heat also from the central matter of our planet. As, however, the substance of the earth is an imperfect conductor, the warmth which is derived from the sun's rays penetrates nowhere above 100 feet, and that which is due to the central heat produces little effect upon the crust of our planet. If we dig down about 60 feet from the surface of any part of the world we find the serata to possess the temperature of the average warmth of the climate of the country above them; if we dig deeper, however, we find the earth grow warmer as we descend, at the rate of about one degree of Fahrenheit's thermometer for every fiftyfour feet. The principal causes of the difference in climate in countries appear to be -the amount of solar heat, elevation, position with reference to continents, or seas, or mountains, aspect, direction of prevailing winds, geological peculiarities, and the state of cultivation. In winter, in the northern hemisphere, we receive fewer of the sun's rays, and those during a more brief period than in summer. The rays of the sun falling obliquely upon us, are, so to speak, spread over a larger space than in the tropics, where they fall perpendicularly. From this cause, and also from the length of the tropical day, the temperature there is always high. The heat derived from the sun, therefore, decreases towards either pole. But the mean temperature, or general climate of any place, is affected in a great degree by the other circumstances which have been mentioned. Forinstance, since thehigher we ascend from the earth, the more rare the air becomes; and as, moreover, air so expanded requires more heat to warm it, so
we shall find that the cold is greater the greater the elevation. Then it happens, that even in the torrid zone there are mountains capped with snow. In all parts of the world, there is a point of elevation where snow would remain unmelted for ages. Places which are situated near large bodies of water, have a less variable temperature than those which are situated in the interior of continents; for in summer evaporation makes the sensible heat latent in the vapour of water, while in winter that vapour becomes condensed, and gives out its latent heat to the air. Moreover, as described in a previous paper, when water is cooled it becomes specifically heavier, and exposes its warm particles to the atmosphere, till its whole mass is reduced to forty degrees, thus supplying a steady source of warmth. Earth, on the other hand, rapidly absorbs heat, but transmits it very slowly ; and so we find that the heat of the sun accumulating in the crust of the earth is readily given off by radiation. Hence, places situated in the interior of continents experience great warmth in summer, and severe cold in winter. So remarkably are the differences of climatedependent upon situation that we find the mean winter temperature of Edinburgh is 28.5 deg. while that of Moscow is only 15 deg. though these places are both in the same latitude. In our own climate, the greatest heat is not at midsummer, nor the lowest at mid-winter ; nor is noon the warmest part of the day, nor midnight the coldest portion of the night. This is because the warming influences, or the reverse, do not act immediately, but produce their effects according to the time they are in operation. The day is hottest about two o'clock, and the coldest part of the night is that which occurs an hour before sunrise.
328. The aspect of any situation is well known to exercise a great influence upon its temperature, and the gardener makes use of his knowledge of this fact in placing his fruit-trees on the walls. That which is true of a garden wall applies upon an extended scale to the slope of a country or its aspect. Thus we find the climate at the same altitude on the two sides of the Alps of a strikingly different character-the one is sheltered from the northern blasts and exposed to the sun, while the other has a compara-
tively small portion of the sun-rays, and is chilled, moreover, by the cold winds from the north.
329. The lowest mean temperature is found in North America. in 100 deg . W. long., and in Siberia, in 95 E. long. These are known as "poles of cold." The average temperature of the former is- 35 deg . Fahr., and of the latter, 1 deg. Fahr.
330. "Snow like wool," is not only correct as an ordinary metaphor, in which things alike in appearance are compared; snow resembles wool in its properties as a mon-conductor of heat ; and, indeed, nothing could be so well adapted to protect the earth "as with a garment" during severe cold, and yet so wisely contrived to pass away, and by its melting to fertilise the earth as soon as a warmer atmosphere is spread over the fields. It is recorded that "in Holland during the winter of 1776 , the surface of the earth was frozen to the depth of twenty-one inches on a spot of garden ground kept free from snow, but only to nine inches on an adjacent spot, covered with four inches of snow." The Esquimaux have discovered this quality of snow, and make use of it for building houses ; and "when the lamps are lighted and the hut full of people and dogs, a thermometer placed on the net over the fire indicates a temperature of 38 deg.; when removed two or three feet from this situation it falls to 32 deg., the temperature of the open air at the time being 25 deg . below zero.
331. In the Arctic regions what is called "red snow" is sometimes found, and excites some alarm among the superstitious. It appears to be common snow coloured by oxide of iron, in a state of extremely minute division, and a vegetable principle, belonging to some lichen of a resinous character, and of an orange-red tint. The colouring matter is stated to penetrate to various depths, and is found to consist of exceedingly minute globules when examined under the microscope.
332. While snow is lying on the ground aninteresting experiment may be performed, showing the different powers of colours to reflect or absorb heat. Procure some small pieces of kerseymere cloth, of equal fineness and size, seven of them having the prismatic colours, and of the others one black and the other white. Lay them in the sun-
shine an inch apart upon snow, and leave them in that position for a short time ; then observe how much the snow has melted beneath each piece of cloth, and how deeply each slip has sunk below the level of the surface. The black will be found to be the deepest, and the others in the following order :-violet, indigo, blue, green, red, orange, yellow ; the snow beneath the white cloth will be unaffected. By the aid of the information derivable from this experiment, we may answer the practical question-what colour is best adapted for clothing at particular times of the year, since it is evident that warinth or coolness depends not only upon the material of which our vestments are composed, but also upon their colour. In sunny weather, when it is desired to keep the body cool, white clothing is to be preferred, because it reflects heat; while in winter, when all external heat is to be absorbed and not reflected, the darker colours are to be chosen. Sensation long ago taught our ancestors these facts. Before passing from this digression, let it be understood that the rule which applies to inorganic or dead substances, does not hold good in the case of the skin of the living negro, or the black coating which lines the back of the chamber of the eye; since it is found that the scorching power of the sun when received by living black surfaces is destroyed.
333. But why should snow be white? some may ask. If black and the darker colours of the solar spectrum be the warmest clothing, why was not that colour chosen for the covering of the earth in winter? The question is a natural one, but the answer is easily given. If snow had been black, it would have rapidly absorbed the sun's rays, and would have thawed beneath the first sunshine which fell upon it; the result would have been that the vegetation, prematurely deprived of that protection which was intended to guard against the cold, would have died in the frosty air as soon as the sun had set. Moreover, we find that all living things perish under sudden alternations of temperature, though, if the change be made gradually, they can survive in curious extremes of heat and cold. We observe that a frost in spring, or in early autumn, generally does more damage to vegetation, than the prolonged frosts and
excessive cold of winter ; because the sun's rays act quickly upon the unprotected frozen plants, and by a sudden alteration in their warmth, induce a change inconsistent with their vitality. Hence, gardeners who understand the philosophy of their employment, take as much care to protect the objects of their attention from the sun's heat as from the frost's cold. The white, heat-reflecting, and non-conducting snow, is the best protection against sudden alternations of heat or cold, for while it is melting its temperature never varies from 32 degrees-and the vegetables which are enveloped in it rarely suffer a much lower, and cannot be exposed to a higher temperature.
334. Hoar-frost gives great beauty to the scenery of the winter months, and should thercfore be noticed here. If a quantity of common alum or sugar be dissolved in hot water in a glass or porcelain vessel, and a number of strings or thin rough sticks be suspended in the liquid while cooling, it will be found that crystals of sugar or alum will be deposited upon the strings or sticks, before the smooth sides of the vessel show any marks of crystalline formations. This readiness, if we may call it so, of bodies as. suming the crystalline form, to adhere to rough and porous substances in preference to such as are polished or compact, is observab e in the crystallization of watery vapour, which we know as hoar-frost. The tuft of hair scraped from the cow on the iron railing, is covered with white fringes of frost-work, while the smooth metal has not a trace of crystalline deposit. The curled dead leaves, or the crumpled straws upon the pavement, have their edges adorned with white embroidery, while the surface on which they lie is unmarked by anything of the kind. When there is a very large quantity of moisture in the air, these differences do not appear so clearly, and the hoar-frost deposits its "rime" upon all surfaces, though most thickly upon the rough and porous.
335. The beautiful and fantastic forms which dim the window-pane are also crystals of water. The perspiration from the skin and lungs of the inmates of a room, is condensed upon the glass which has given out a portion of its heat to the external air, and in turn withdraws a portion of the
caloric from the watery vapour, with which its internal surface is in contact. The vapour having lost that portion of its latent heat which was necessary to its existence in the gaseous form, resumes the fluid shape, and is deposited as dew upon the windowpane, where its temperature being still further reduced, it becomes solid, and gives to the eye the beautiful crystalline arrangement with which all of us are familiar. Amidst all the wonderful changes, the water remains unchanged in its composition. To its various changes, and to the myriad processes to which it is necessary, are due, in a great degree, those natural phenomena which make the planet we inhabit so full of exquisite beauty.

## 336. FORTUNE IN THE FIRE.

"Sweet Norah, come here, and look into the fire;
Perhaps in its embers good luck we may see: But don't come too near, or your glances so burning,
Will put it clean out, like the sunbeams, machree!
Just look 'twixt the bars where the black sod is smoking;
There's a sweet little valley with rivers and trees,
And a house on the bank quite as big as the squire's -
Who knows but some day we'll have something like these?
And now there's a coach with four galloping horses,
A coachman to drive, and a footman behind;-
That shows that some day we will keep a fine carriage,
And fly through the streets with the speed of the wind."
As Dermot was speaking, the rain-drops came hissing
Down through the wide chimuey: the fire went out;
While mansion, and river, and horses, and carriage,
All vanished in smoke-wreaths that whirled about.
Then Norah to Dermot this speech softly whispered-
" Twere better to do, than to idly desire;
And one little hut by the roadside is better
Than a palace, with servants and coach-in the fire!"
[The editor of The Corner Cupboard, in 1857, offered a prize of Ten Guineas for the best musical composition, adapted to the words of the above ballad. The prize was duly awarded for a charming melody, which has been published under the title of "Sweet Norah," price $2 \mathrm{~s}, 6 \mathrm{~d}$., with a beautifully illustrated title-page. It may be obtained by order of any musicseller.]


BASKET OF ALUM CRYBTALS.
337. ALUM CRYSTAL BASKETS.These baskets are easily made, and form very pretty and durable ornaments. Moreover, the materials are inexpensive; alum being sold at oil shops and druggists, at Gom 2 d . to 4 d . per pound. The baskets wre made in the following manner:-Dissolve clean alum in about double the quantity of water which will be required to perfectly cover the basket or baskets you intend to make, Put in as much alum as the water will take up, until you see that it will dissolve no more. Then pour this strong solution into an earthern jar, or pipkin, and let it boil slowly, until the quantity is reduced to one-half. This solution may then be strained through fine muslin. This process is not absolutely necessary, but it improves the brightness and clearness of the crystals deposited upon the basket. After straining, having rinced out the jar or pipkin, return the solution to it, and again heat it to the boiling point.

While this solution is beng made, and heated in the manner already described, make the framework of your basket. It may be made of wire, or of small willow twigs, or chips, or any other substance, and may be of any shape or design to suit your purpose. But you must take care that the work is very open, otherwise, the thick deposit of crystals will fill up the interspaces, and destroy the pattern. (Our meaning in this respect will be sufficiently illustrated by reference to the engraving.) Every part of this framework must be covered with fine worsted, or coarse thread, which is to form a rough surface for the alum crystals to adhere to; and upon the evenness and care with which this covering is laid on, will depend the uniformity of the deposits of the crystals.

The basket frame is then to be set in the olution, suspended by a string attached to a piece of wood laid across the mouth of the vessel. The frame must be completely immersed, and the jar must be set aside in a


BASKET OF CLOVES AND BEADS.
place where it will not be disturbed; and as it cools, the crystals will become deposited upon the basket.

In spite of the best endeavours, the crystals will sometimes deposit themselves irregularly. In this case it is only necessary to dissolve the alum upon the basket, as in the first solution; remedy any defects in the worsted, or thread wrapping, and proceed as before.

Beautiful baskets of blue crystals may be made by using the sulphate of copper (blue vitriol, 8 d . per pound) instead of alum.

White crystals are produced by pure alum; yellow by adding a solution of saffron; red, by cochineal, or red sanders wood; purple, by logewood, \&c.
338. Grotps of Flowers, made upon
suitable frames, and variously coloured as above, form very pretty chimney ornaments. Care should be taken not to spill the solution upon wearing apparel or furniture. 339. CLOVE AND BEAD BASKETS. -These form very pretiy ornaments, are easily made, and are inexpensive. As well as being very neat, they emit an agreeable odour, which they yield for a very long time.

Take whole cloves (which are sold at threepence per ounce), pick out the finest of them, and put them to soak a few hours before you require them, either in hot water, weak brandy and water, or brandy alone. Our own experience tells us that the use of brandy is not positively necessary, though some persons prefer to use it

Obtain white, amber, blue, green, andsilver and gilt beads to fancy. Take twelve pieces of fine wire, each about six inches in length. Run these wires through beads, to form a centre at the bottom of the basket. Lay them so that they cross each other, four wires passing each way.

With a fine shoemaker's awl (called a "closing awl") or with a large needle, with a cork fixed at the eye-end to protect the hand, perforate each clove, and string them on the wires, passing two wires through each clove. When you have put two cloves on to each double wire, put on a bead, of any colour to fancy ; then a single clove on a single wire, as it passes out from the bead; then pass each wire through a bead, with the wire coming up on the left or the right hand side next to it; then another clove at the end, and having put a bead on at the end, unite the two wires by twisting a little loop in the wires, so that they shall fasten as what is called hook-and-eye. The smaller these fastenings are, the neater the basket will be; and for the purpose of cutting and turning the wires, it will be found convenient to have a little cutting nippers, such as the watchmakers use, with a sharp point on one side, and a round one on the other.

The bottom, or stand of the basket, is made in the same manner, with the exception that only four wires are required. When the stand is made, it is attached to the basket in the same manner as the wires are joined at the ends.
These directions may not read very plainy, as the process of making clove baskets is very difficult to describe; but when you start from these instructions, the process is really so simple, that it will explain itself as you proceed, and baskets in every variety of shape may be made. Reference to the engraving will be of material assistance in the commencement of the operations.

## 340. DUTCH FOLK-LORE.

1. A baby laughing in its dreams is conversing with the angels.
2. Rocking the cradle when the baby is not in it, is considered injurious to the infant, and a prognostic of its speedy death.
3. A strange dog following you is a sign of good luck.
4. A stork settling on a house is a har-
binger of happiness. To kill such a bird would be sacrilege.
5. If you see a shooting-star, the wish you form before its disappearance will be fulfilled.
6. A person born with a caul is considered fortunate.
7. Four-leaved clover brings luck to the person who finds it unawares.
8. An overturned salt-cellar is a ship wrecked. If a person take salt and spill it on the table, it betokens a strife between him and the person next to whom it fell. To avert the omen, he must lift up the shed grains with a knife, and throw them behind his back.
9. After eating eggs in Holland, you must break the shells, or the witches would sail over in them to England. The English don't know under what obligations they are to the Dutch for this custom. Please tell them.
10. If you make a present of a knife or scissors, the person receiving must pay something for it: otherwise the friendship between you would be cut off.
11. A tingling ear denotes there is some. body speaking of you behind your back. If you hear the noise in the right one, he praises you; if on the left side, he is calling you a scoundrel, or something like that. But never mind; for if in the latter case you bite your little finger, the evil speaker's tongue will be in the same predicament. By all means don't spare your little finger!
12. If at dinner a person yet unmarried be placed inadvertently between a married couple, be sure he or she will get a partner within the year. It's a pity it must be inadvertently.
13. If a person, when rising, throw down his chair, he is considered guilty of untruth.
14. A potatoe, begged or stolen, is a preservative against rheumatism. Chestnuts have the same efficacy.
15. The Nymphæa, or water-lily, whose broad leaves and clear white or yellow cups float upon the water, was esteemed by the old Frisians to have a magical power. "I remember, when a boy," says Dr. Halbertsma, "that we were extremely careful in plucking and handling them; for, if any one fell with such a flower in his possession, he became immediately subject to fits."
16. One of my friends cut himself. A man servant being present, secured the knife hastily, anointed it with oil, and putting it into the drawer, besought the patient not to touch it for some days. Whether the cut was effected by this sympathetic means, I can't affirm ; but cured it was : so don't be alarmed.
17. If you feel on a sudden a shivering sensation in your back, there is omebody walking over your future grave.
18. A person speaking by himself will die a violent death.
19. Don't go under a ladder, for if you do you will be hanged.

## 341. "THAT WILL DO."

"That will do," is a phrase of modern invention. The ancients knew of no such expression, or the Egyptians would never have raised the pyramids, nor the Greeks and Romans displayed that love of the beautiful, which led them to impart a poetic grace even to the meanest utensils for household use, as the remains at Pompeii fully testify.
"That will do," is the excuse of mediocrity, unable to soar to better things.
"That will do," is the self dispensation given by the lazy painter, who glosses over the want of anatomical correctness by a showy colouring.
"That will do," is the besetting sin of architects, who lay their shortcomings to the want of a favourable site or an Italian climate.
"That will do," is the precept held in veneration by most servants.
"That will do," makes your sloven and your slattern. A man, who adopts this motto with regard to dress, does not mind being seen with a dirty shirt, and a beard of two days' growth-while the same fatal device allows a woman to go about the house with curl-papers and slipshod.
"That will do," applied to household matters, is equally bad, and more annoying to friends, than when applied to dress. You may expect ill cooked dinners in any house where the heads adopt this maxim-to say nothing of shabby carpets, want of paint, dirty muslin curtains, \&c.
"That will do," has conjured up a host of inefficient teachers, and a still longer proportion of imperfect scholars.
"That will do," has sunk many a shipcaused the downfall of scaffolding holding
hundreds of human beings-occasions at least half the fires that take place, and is at the bottom of most railway disasters.
"That will do," is the enemy to all excellence, and would sap the conscience of the most virtuous man alive, if he hearkened to its dictates. The only persons to whom we recommend it are drunkards, gamblers, and spendthrifts, who might very profitably ocoasionally exclaim : "That will do !" But moralists and others must bear in mind, that nothing will "do" but the very best i: point of virtue, or they will run risk, when the great day of reckoning shall come, that the recording angel will not say in their favour: "That will do !"
342. FAMILY REGISTERS.-We are about to recommend to families the keeping of "family registers," upon a plan not hitherto adopted, and we feel confident that the acceptance of this suggestion by our readers will afford them a great deal of gratinication.

In nearly every house there is a scrapbook of varieties, too frequently filled with unmeaning pictures, or absurdly sentimental poetry. Yet in many instances these scrapbooks form the mementoes of by-gone days, of dear ones departed, or of friends far away.
The Family Register which we are about to recommend would form a far more pleasing and instructive remembrancer. Hitherto the family chronicles have chiefly been confined to the mere entry of the births, marriages, and deaths of one section of a family only, within the covers of a family Bible. Our plan is to keep a neat and suitable book, to be called "The family Register," in which not merely the births, marriages, and deaths shall be entered, but every event of interest and importance in the history of the whole family connection, from great-great-grandfather down to cousins of the remotest kindred.

Such a book would, when well filled up, become extremely interesting, and might be handed down as an heir-loom from one generation to another.

We give an illustration of the kind of register we would have kept, and we sug. gest that there are very few families whose registers may be filled up, but their histories would supply some interesting event falling upon almost every day of the year.

FEBRUARY.]

John Wilson, died, 1852, aged 72 years.
He was the affectionate father of eight children, six of whom survive him-viz., John Wilson, Henry Edward Wilson, Mary Wilson (Mrs. Morris), Anna Maria Wilson, Alfred Wilson, and Emma Wilson (Mrs. Wills). Dead: Arthur Wilson and Charlotte Wilson.

During his life-time he treasured the sentiments of the following lines, which he often repeated to his children :-

> "Let not soft slumber close mine eyes,
> Ere I have recollected thrice The train of actions through the day. Where have my feet marked out their way What have I learnt where'er I've been, From all I've heard, from all I've seen? What know I more, that's worth the knowing? What have I done that's worth the doing? What have I sought that I should shun? What duties have I left undone? Or into what new follies run? These self-inquiries are the road That lead to virtue and to God."

And he died in the happy faith that he had found the road which he had so diligently sought.

## 11.

## Alfred Wilson sailed for Australia, 1852.

Poor Alfred had been a wayward youth, and during his father's lifetime had caused him much anxiety. But the death of his father affected Alfred so much, and brought such a stern lesson to his heart, that he became an altered man, and determined to repair his life and fortune in another land. Heaven prosper his good intentions! His departure from among us was a day of sorrow, yet of hope.

## 12.

## Maria Wilson, married to Edward Morris, at St. Mark's Church,

 by the Rev. Mr. Price, 1856.Maria and Edward, after a happy courtship of three years, became husband and wife. The day was beautifully fine, and Maria looked lovely. Edward was the picture of happiness. The wedding party returned from church to Henry Edward Wilson's, where twenty guests sat down to an excellent breakfast, after which the wedded pair left for Paris.

In our opinion, such a page as that which we have given should form the left hand page of the family register, the right hand page being devoted to a fuller account of the chief events recorded in the diary of the register on the left hand page. For instance, a more extended biography of Mr. John Wilson; upon this page, too, might be affixed a specimen of his handwriting, and his autograph-a letter that may have been written from him to his family, under some circumstances of joy or of sorrow.

Has it never occurred to our readers that, one by one, our parents, our brothers and sisters, and our friends pass away, and that they are too little remembered in the future of our lives. The French people and the Welch have certain days of the year in which they visit the graves of the deceased, and strew flowers over the places where they sleep. But the cold and neglected stone is, with us, too often all that remains to tell of the departed.
The keeping of such Family Registers as we have suggested would bring before the minds of the survivors of a family the events of deepest interest in their family's history-events that would point great lessons, and prepare the feet of the traveller, still journeying through life, to tread the thorny and difficult paths with greater comfort and security.

We would have The Family Register in the manner of the scrap-book, interleaved with embossed and coloured papers; where "memorial cards," embossed with appropriate designs and inscriptions, and "wedding cards," locks of hair, autographs, invitations, \&cc., \&c., may be preserved as a family souvenir; so that the cold headstone over a grave should not be the only memento of those who have loved and laboured for us in by-gone days.

We have looked about to endeavour to find books suitable for this purpose, to aid our readers. The only ones, however, that we have been able to find, are Letts's Family Register (8, Cornhill,), which are books of various sizes, bound in plain cloth, and ruled and arranged for the reception of family events. These admirably answer for all practical purposes. But our own idea is that something more characteristic of the "Register" may ultimately be adopted; and that books interleaved with embossed
papers, \&c., such as we have recommended, will soon be published at a moderate price.

## 343. THE COBBLER OF THE VIL-

 LAGE.-It was a Sabbath morning., The silvery sounds of the "church going" bell were re-echoed from many a village steepk summoning the neighbouring peasantry ti the house of God.Groups of men, women, and children, might be seen wending their way towards the small and rustic, but picturesque charch of Muhldorf, all dressed in holiday attire. The mothers and grandmothers of the village were decked in their wedding clothes, which, thanks to the good care with which they were guarded during the remainder of the week, looked almost as new as on their wedding day; although they had, to be sure, become somewhat antiquated in appearance. Even in a secluded country village, fashion continues to exercise her sway. Her laws, it is true, may be less versatile than in the city, but they are not less despotic; and the young girl -dressed in her black boddice trimmed with red; her short, full sleeves, and pretty straw hat-smiles as she looks at her mother's long waist, and her grandmother's ruffles ; forgetting that her children will, in their turn, smile as they look upon her holiday attire, some forty or fifty years to come. Each one of this varied group carried a hymn-book in their hands, and all seemed light-hearted and joyous; for to these good and simple-hearted villagers the Sabbath was a festive day; and they rejoiced as they went forth together to offer up their united prayers and praises to the Author and Giver of all good things.

At the half-closed window of a solitary and almost ruined cabin, which lay not far from the high road, there stood an aged man, who gazed sadly upon the scene before him. He followed with his eyes the churchgoing groups of peasants, until the last had entered the house of prayer. Then the bell ceased, and he heard their united voices ascending in a song of praise. His eye rested for a moment on his tattered coat; and then, hastily dashing away a tear which trickled down his furrowed cheek, he turned towards his wife, who sat weeping bitterly, whilst her head rested upon the miserable board which served them for a table.
"Do not weep thus, dear Bertha," said her husband, "or God will be displeased with us. He would have us bear our trials cheerfully, and He knows that it is not our fault if we have not accompanied the rest to His house to day. He knows that we could not go there in these rags, which scarcely cover us, and that when we could go, though the church was two leagues distant, we always walked there with pleasure. God sees the heart; He knows that ours are with Him-here, as well as in church. Therefore, my Bertha, do not weep any longer, but give me the prayer-book, and I will read a prayer, and then we will sing a hymn together."

Bertha rose, took from a shelf an old, half-torn prayer-book, and handed it to her husband.
"I will pray with you, gladly, my good Marcel," she replied, "but I cannot sing, indeed I cannot; my heart is too heavy. When I see ail these aged women passing by to church, with their children and grandchildren -"
Marcel: "And their wedding clothes on them to! it breaks thy heart, my poor Bertha, does it not? Alas! thine became thee so well, and it has been burned together with everything else we possessed. But, it was God's will; and remember, that we might have been burned too, if He had not been pleased to preserve our lives."

Bertha: "What good does that do us, if we are now to perish with hunger? Would that I had died with my poor Georgette!"

Marcel: "Bertha, Bertha, is it thus you love me? What should I have now to comfort me, if my good wife had also been taken from me?"

Bertia (reaching out her hand to her husband) : "You are in the right, Marcel ; forgive me. I feel as if I could bear anything, so long as thou art spared to me. But we have now scarcely bread enough left for a single day; and then, look at our clothes, how tattered they are."

Marcel: " God and good men will provide for us, my wife; to-morrow we can work. I have four pair of shoes there to mend, for which I shall certainly be paid two-pence a piece, and how thy wheel will turn! We have not yet been forced to beg, and that is what would grieve me most. It
is a different thing to receive that which is freely offered to us; he who seeks out the poor has a good heart, and it is sweet to thank him. But to have to ask alms of those who will perhaps refuse them, this is hard, very hard. Oh! I pray God that he will spare us this trial in our old age !"
"We may yet, however, be compelled to do it," said Bertha, again bursting into tears; "we cannot be sure of anything in this world. Who would have thought at one time that our son would die in the hospital ?"
Marcel: "Who could have thought that he would have died before us? That was the great misfortune; for as for this hospital, which weighs upon thy heart so much, a great many good, honest folk die there, and go to hearen, as well as if they died at home. Our children are in heaven now, we may be quite sure of that; God took them both whilst they were following the right path, and who knows, if they had lived longer, whether they might not have gone astray from Him? Would not that have grieved thee more than restoring them to Him, who lent them to thee for a little season? Now then, my Bertha, dry thy tears, and let us kneel down and pray together."

Bertha sighed, and made no reply.
The poor mother could not be comforted as she thought on her two fine children, now no more, and on the sudden change in her circumstances, which had plunged her and her husband from a state of comfort into one of abject misery. Her husband felt the loss of his children and of his property as much as she did; but grief assumes a very opposite form in men and in women. Men seldom like to speak of their sorrows; whilst women seem to find relief in pouring out their hearts to a sympathising friend. This was the case in the present instance; Marcel's heart was, if possible, even heavier than Bertha's, but he made an effort to appear calm and resigned, and whenever his wife approached the mournful subject, he always tried to give a turn to the conversation.

The trials they had been called to endure were bitter indeed.

Their son Francis, a boy of much promise, had wished to follow the trade of a carpenter, and as he seemed likely to become a skilful
artisan, his father, who was then in comfortable circumstances, apprenticed him to a first-rate master carpenter in a distant town. Under his instruction, the young man was making rapid progress, when he was suddenly seized with a contagious fever, and the master, fearing the infection for his family, sent Francis to the hospital, and shortly afterwards communicated to his afflicted parents the tidings of his death.

It was this thought of his having died in an hospital, which weighed so heavily upon poor Bertha's heart. She feared he might not have been properly cared for; and she felt that, had her beloved child died in her own arms, and been tended to the last by a mother's love, she could have borne the trial better. But that which yet further added to her sorrow, was the fact, that she never was able to ascertain any particulars concerning his last moments. Marcel had writteu to the master carpenter under whose care he had placed his child; but the answer, though kind, was vague and unsatisfactory, and the poor old couple, living as they did in a sequestered village, some days' journey from the town, knew of no other channel through which they might obtain the desired information.
They had yet a daughter, who was now their chief earthly consolation-a blooming and dutiful maiden, about sixteen years of age-but a fresh blow awaited them in this quarter. Their house was struck by lightning, and burnt to the ground, together with all it contained; and although their lives were spared at the time, yet the terror of that night gave their beloved child such a shock, that ere many days were over she sunk into the grave.
Her broken-hearted parents, though wellnigh ruined, had still enough left to enable them to subsist; they would not attempt to rebuild their farm, not having any children to whom to bequeath it at their death; but they borrowed money on the land, and hired an humble lodging, where, for some time, they dwelt together in peaceful sadness.

At last, however, the terrible seven years' war broke out; they were compelled to lodge soldiers and furnish contributions; their fields were trodden down, and their harvests destroyed; so that when the time came to pay the interest on the monies they had
borrowed, they were unable to do so, and the little property they had inherited from their fathers was put up to auction and sold.

They were now reduced to a state of utter destitution ; but some kind neighbours clubbed together, and, though poor themselves, supplied them with a small sum of money, which sufficed to purchase the isolated and almost uninhabitable cottage which they now occupied, which was situated at the distance of about ten leagues from their native place. Bertha earned a scanty pittance by plying her spinningwheel from morning till night, for the benefit of the neighbouring peasantry; whilst Marcel, too old now to dig the ground, sat cobbling shoes by his wife's side. He was called the "old cobbler of the cabin;" and he generally was supplied with as much work as he could do.

The old couple in this way earned enough to supply them with the frugal fare they needed; but they had as yet not been able to lay by a single penny for clothes, and their well-saved garments were now rapidly falling into tatters. They were ashamed to show themselves in church, and dreaded the approaching cold of winter.

ButMarcel strove to cheer and comfort his more desponding wife; reminding her that God fed the young ravens and clothed the birds of the fields, and that He could also provide for them when the right time came.

On the Sabbath-day of which we now speak, the aged couple were, however, peculiarly sad, and long after the congregation had dispersed, and the joyous family groups which had re-awakened in their breasts so many sad remembrances, had returned to their homes, Marcel still stood gazing out of the window, absorbed in his own reflections. In front of the cabin there rose a grassy knoll, crowded by some lofty walnut trees. A traveller was now reposing beneath their shade; he carried a knapsack on his back, and a staff in his hand. His shoes, covered with dust, indicated that he was a foot-traveller; but he was well clad, and seemed altogether to be a person well to do in the world. After he had rested for a few moments, he opened his knapsack, and drew from it a small white loaf and some dried fruit, on which he made a hearty
repast. How gladly would poor Marcel, who had not tasted a morsel of food that day, have shared in this simple but abundant meal! The stranger next drew from his knapsack a piece of new stuff which he half opened, gazed upon with an air of satisfaction, and then restored it to its hiding-place; after which having looked at his watch, and cast a glance on the surrounding country, he rose from his resting-place, and pursued his journey.
"How happy that man looked!" thought Marcel within himself; and as he stood thus thinking and gazing upon the shady knoll, the fancy seized him to go and rest there for an hour or two himself.

He crossed the high road, and ascended the gentle slope which lay before him. As he did so, his attention was attracted by something white, which lay upon the spot where the traveller had reposed. He approached, and lifting it from the ground, found it to be a piece of paper containing something heavy.

On opening it, Marcel, to his surprise, discovered four double louis d'or, and, wrapped within a second fold, a large gold cross-such as women of the country wear suspended around their neeks - attached to a slight gold chain. Never, even in the days of his prosperity, had Marcel seen so much gold collected at one time. He turned it over and over in his hand, and then folded it up again carefully in the paper. He no longer felt any wish to sleep. He strained his eyes along the road by which the traveller had departed, but no traces of him could be discovered. He then turned towards his cabin; and seeing Bertha in the window, signed to her to come to him.

In a moment she was by his side.
"What are you doing here?" she exclaimed.

Marcel: "A fine treasure-trove this, Bertha! Look at the contents of this paper."

Bertha: "Why this is golden money, is it not?"

Marcel: "Yes, certainly! I think they are double louis d'or."

Bertha: "One - two - three-fourthere are here, then, eight louis! and how little room they take! And this cross-is it gold or copper?"

Marcel: "I think it is of gold, and the chain also."

Bertha: "What a treasure! It is just as though an angel had placed it there on purpose for us. It must have been in answer to thy prayer that thou wast allowed to find it. God has fed us like the young ravens which call upon Him. Now we are rich again, and have as much as we can want for a long time to come. See, Marcel, with one of these pieces of gold we buy warm clothing enough for both of us; with another, we can purchase some wheat; with the third plenty of furniture; with the fourth-I suppose that would not be enough to buy a cow-no! we must not be too ambitious-we must content ourselves with what God sends us; we can keep the fourth piece, together with the cross, against a rainy day; in case we should fall sick, for instance. You are laughing at me now, Marcel, but if we had only $\qquad$ ""
Marcel (hastily interrupting her): "My good Bertha, I am laughing at the way in which you are disposing of that wbich does not belong to us."

Bertha: "What do you mean, Marcel? did you not find it? Do you even know who lost it? Neither gold nor silver have any mark about them to show whom they belong to : they are the property of any one who finds them?"

Marcel: "But, as it happens, Berthz, I do know to whom this gold belongs."

Bertha: "How can you know ?"
MARCeL: "It belongs to a traveller who rested here only a quarter of an hour ago. I saw him from our window. He opened his knapsack, and took out a piece of stuff which he half unfolded, and it must have been in doing this that he dropped this little packet."

Bertha: "He must have a great many of these louis, or he would not take so little care of them as to lose them in this way; this loss is, most probably, a mere nothing to him, whilst to us the finding of such a sum is everything."

Marcel: "You are right, Bertha, it is everything; for it may either be the saving or the perdition of our souls; we have but a short time to live, and shall we load our consciences with the weight of these eight louis? You think they would make us happy! You are mistaken,' dear Bertha;
we should be a hundred times more unhappy than we now are, were we to yield to the temptation of keeping this money. We might, it is true, have a better bed, but our slumbers would be less tranquil; we should feel yet more ashamed then to go to church in our good clothes, than we now do in our rags; and when the day shall come, in which we must render an account of our actions, how should we excuse ourselves before God for having committed this sin? By pleading our extreme poverty, perhaps, you would say. But our poverty, I think, should be an additional incentive to us to do what is right, that we may not lose the only wealth which remains to us-a good conscience. Take courage, Bertha! we shall not die of hunger. Look at all those fields which surround us, waving with corn : the harvest will soon begin, and then we shall glean. The judge, you know, is always kind to us-he will, I dare say, give us two or three sheaves ; and so will the minister, too; and that will do us much more good than this gold, which does not belong to us."

Bertha (sighing): Yes, as far as food is concerned, but how are we to get clothing ?"
Marcel: " God will provide. Does He not clothe the lilies of the field, and has He not told us to take no thought for the morrow? Perhaps this traveller will give me some little reward; not that I deserve any, for simply doing what is right, but if he would give me enough to buy a gown, or even apron for you, my dear Bertha, I shall feel very grateful to him."

Bertha: "I believe you are right, Marcel ; but where do you expect to see him again ?"

MARCEL: "I will at once make a short cut across the fields, to the high roadwhich at this point, on account of the river, makes a considerable circuit. More than a quarter oflaeague is saved by going this path, and I hope, by this means, to overtake the traveller?"

Bertha: " But should you fail to do so, what step will you next take?"

Marcel: "Why then, my dear wife, unwilling as I should be to beg, I would ask the judge to give me enough to pay for an advertisement in the newspaper, which the stranger would surely be glad to repay
him when he got back his money and gold cross. And now, dear Bertha, will yos get me my stick, that I may set out as fresh as I can."

Bertha lost not a moment in complying with this request. Her husband's uprightness of heart had re-awakened in her soul all those better feelings which the sight of so much gold in this, her hour of extreme need, had for a moment lulled to sleep. She returned quickly with the stick, which she handed to her husband, saying,-
" Here, go quickly, my good Marcel ; I long to get rid of this wretched gold, which made me commit so great a sin."

Marcel set out directly, but his aged and stiffened joints refused to obey his willing heart, and he proceeded but slowly. Bertha watched him as he walked along, leaning heavily on his staff, and his white hair waving in the breeze.
"He will never reach the traveller," she thought within herself, " and the poor dear man will kill himself if he walks the six long leagues which lie between this and the town. But I do believe I have lost my senses-it is I who should have gone instead of him. I am ten years younger and much stronger than he-he is going so slowly-I shall soon catch him."

And the good Bertha, as she thus spoke, feeling herself young in comparison with her husband, although she had already completed her sixty-fifth year, set out running as if she were not more than thirty years of age. She reached him before he had got to the end of the field, and, laying her hand on his arm, said,-
" Now, good Marcel, you must sit down and let me go in your place."

MARCEL: "No, no, Bertha, that will never do-you did not see the traveller, and could not recognise him if you did overtake him."

Bertha: "Ah! that is true, but could you not describe him to me? is he old or young, dark or fair? and what coloured coat does he wear?"

Marcel: "I only saw him at a distance, but yet I should be sure to recognise him; he is a middle-aged man, tall and well built, and his complexion very dark; but listen, my good Bertha, we will both go, and then we shall help each other, and get on faster."

Thus saying, he passed his arm within
that of his wife, and the poor aged couple went on their way together, as fast as they could. They stopped when they reached the spot where the path joins the highway, and in a few moments they had the pleasure of seeing the traveller advancing towards them.
" There he is !" exclaimed Marcel ; "let us go and meet him."

When they had approached within a few paces of the traveller, he was so much struck with their air of extreme poverty, that he at once began to search his pockets for some money to bestow upon them; but Bertha, perceiving his intention, exclaimed,-
"Thank you, sir, thank you; but we have not come hither to seek an alms from you; on the contrary, we have come to give you something."

The Stranger: "To give me something, my good friends, how is that?"

MARCEL: "My wife makes a mistake, sir; it is not to give you anything we have come-only to restore to you that which belongs to you. Did you not sit down to rest, about half-an-hour ago, beneath a walnut tree, on a grassy slope, near the high-road ?"

The Stranger: "Yes, I did, indeed; now I remember having seen you; you were standing at the window of a little cabin, at the opposite side of the road."

Marcel: "You opened your knapsack, and took out a piece of stuff, which you unfolded ; and it was, doubtless, at that moment, that you dropped a piece of paper, containing-"

The Stranger: "If it was mine, four double louis d'or, and a gold cross and chain; the latter was wrapped in separate paper, and a few lines were written on the cover."

Marcel had seen the writing, but could not read it, having left his spectacles in his prayer-book.

The traveller opened his knapsack, and emptied it ; but found, as Marcel had said, that his gold was not there.
" Here, sir," said the old man, handing him the little packet, "here are your louis and your gold cross, and I hope you will take better care of them for the future."

The Stranger received his lost treasure with a mingled expression of respect and
gratitude ; and, pressing the old man's hand, he said,-
" You have rendered me a great service; and, to judge from appearances, you have the more merit in restoring this sum to me, that you seem to be very poor."

MARCel: "Yes, sir, we are poor; and, for that reason, we so much the more need the comfort of having a 'conscience void of offence, towards God and towards man.' "

The Stranger: "Excellent old couple! to think of you both, at your age, running this distance to bring me back my money ! Could you not have sent it to me by one of your children ?"

Bertha: " Alas, sir, we have no children ; that is our greatest misfortune. Once we had two ; but now --"

Marcel : " When we suffer, we, at least, suffer alone. Come, my dear Bertha, we must let this gentleman continue his journey. Good afternoon, sir."

The Stranger looked embarrassed.
"No, no, good father," he exclaimed, seizing the old man's hand, "we must not part thus. Stay a moment, I beseech you, and sit down and listen to me. This gold I look upon as a sacred trust, which does not belong to me. I will tell you for whom I destine it, and then you will see why I can subtract nothing from it; but, before eight days are over, I hope to see you again, and to offer you, at least, some trifling token of my gratitude. Will you kindly tell me your name," "he added, drawing out his pocket-book; "I shall not easily forget either the little knoll, or the cottage where such good people dwell."

Marcel : "I am known in this village as the 'old cobbler of the cabin;' it will give us pleasure to see you there again; but, should you not return thither, we shall still pray to God to bless you; for you have procured us a happy hour, and we do not enjoy many such."

The Stranger: " Good old man! should I forget to visit your lowly dwelling, I should prove myself unworthy of the happiness which I am now about to seek, and which I tremble lest I should not find. It is now more than twenty-five years since I quitted my family, and during all that time I have never had any tidings of them. My parents, doubtless, think that I am dead; unless, indeed, they have themselves
entered into rest. But, if I find them still living, how happy we shall all be together !" BERTHA (weeping) : "Ah, yes! happy indeed. Oh, how happy are those who have the prospect of seeing their children once more here below! We shall never see ours again, until we reach that heaven where we trust they are waiting for us."

Marcel: " You see, wife, I was right this morning when I told you that sometimes when children live, they may cause their parents as much grief as if they died. Here is one now who appears a worthy man, and yet he has allowed his parents to remain twenty-five years without receiving any tidings of him. Is that not worse than if they had lost him by death ?"

The Stranger: "I was guilty, indeed, to allow myself to be tempted by a recruiting sergeant to enlist without their permission ; but beyond this, I was not in fault. The regiment in which I enlisted was sent to Batavia, and I was despatched almost directly into the interior of the country, whence I found it impossible to get my letters forwarded. On my return to Batavia, I wrote several letters to my father, but no answer ever reached me. I made plenty of money, but what use is money when the heart is not at rest ? -mine turned continually towards Europe. I thought of my native village, where I had left all I loved best in the world-my father, mother, and sister. I decided on returning; I obtained my dismissal and set sail, without delay, in a vessel bound for Hamburgh.
" After a prosperous voyage, I reached that place about two months ago; and there I met by accident my old master, a head carpenter, to whom I had been apprenticed in my youth, and who had taken up his abode in that city shortly after my departure.
"I knew him direotly ; but I had become so bronzed beneath an eastern sun, that it was long before he recognised me. When I told him my name, he was much surprised; but received me as a son, and brought me to his own house. I there renewed my acquaintance with his daughter, whom I left a pretty, playful child; and now found an amiable intelligent woman. Every day I intended to set out on my return to my native place; but every day I was pressed
to stay, and the thought of my departurc made Annette sad. I loved her from the time she was a little child, and now I said to her father, -
" • Your Annette and I love one another. I have saved enough to provide for a comfortable home. Will you let her be my wife ? I will go and seek for my parents, and then we will all live happily together; but Annette must become mine before we part.'
" My master gave his consent. Annette and I were married; and two days afterwards I set out, promising to return to her as quickly as I could. My Annette has the heart of a queen; she bought a beautiful piece of stuff to made a dress for my mother, and then, wrapping up a four double louis, which her father had given her on her wedding-day, she said to me, -
" ' Take these to thy father with my love, and tell him that I have sent them to pay the expenses of his journey.' Then, unclasping a chain which she wore around her neck, and to which a gold cross hang suspended, she asked me to bring them to my sister, to whom she also wrote a ferv friendly words. I set forth cheerfully on my journey, ladened with the presents of my Annette; and you can now imagine how grieved I should have been had I lost them, and how great is my obligation to you for having restored them to me. But God grant that I may find my parents yet alive ! Sometimes when I think of it, my heart sinks within me. They must now be far advanced in years, for I am no longer young. I do not feel so anxious about my sister-she was younger than I; but my father !-it would, indeed, be a bitter grief to me were I to find that he was no more!
" He was such a good man-he never let a poor man go away hungry from his doorand my mother always kept a little store of linen for those who stood in need of it. Many were the blessings which the poor invoked upon their heads. You may possibly, by the way, have heard them spoken of, for our home was not far from this. They were well known in the neighbourhood as Father Marcel of Pillnitz, and his wife Bertha."
"Oh !" exclaimed the old man, lifting up his hands towards heaven; "is it a
dream? Bertha! Bertha! can it be indeed our Francis come to life again? It is, indeed, possible! Marcel! did you say ?"

It was him-it was the lost Francis. Vain would be the attempt to describe to our readers the scene which ensued. Bertha, weeping for joy, could not utter a word, but clasped to her heart her long-lost son, and sought upon his brow for some well known mark, soma traces of a cut received in early childhood, that she might feel assured he was indeed her own, her darling Francis.
"Let me kneel down, Bertha," exclaimed the old man; let me kneel down, and praise God for having given us a foretaste of paradise here upon earth, by restoring to us 'this our son who was dead and is alive again, who was lost and is found.' "

But, alas! we are not destined to find a paradise in this world, where our joys are ever incomplete. The remembrance of Georgette soon returned to infuse a drop of grief into their overflowing cup of hap. piness.
"But my sister, my poor sister," said Francis, sadly, " you said just now that you had no children left; what is become of Georgette ?"
"She died in my arms," replied Bertha, weeping bitterly; "she will never wear this beautiful cross!"

Francis silently passed the light chain around his mother's neck, and mprinted a kiss upon her brow.
"May she not be gazing upon us even now ?" said Marcel, looking up to heaven; "I could almost think 1 sie her in that bright cloud, with a golden crown upon her head."

A few moments of silence eisued, for the hearts of all three were too full to speak. It was at last broken by Marcel, who said, turning to his wife :-
"Will, Bertha, you see that, after all, people did come to life again out of this hospital, which you had such a horror of."

Francis told them, that whilst confined in bed at the hospital he had become acquainted with a recruiting sergeant, who lay in the same ward, and who persuaded him to enlist immediately on his recovery. The re-
mainder of his history we have already heard. The master carpenter, fearing the reproaches of the young man's parents, for having sent their son to the hospital, and thus exposed him to evil influence, wrote them word that he had died, and silenced the reproaches of conscience, by persuading himself that the falsehood he had told would save them many a year of anxious suspense and bitter grief.

The aged parents then told in their turn their own brief, yet sad history, and the misfortunes which had well-nigh bowed their grey heads in sorrow to the grave, and altered their appearance so much, that it was no marvel their long-absent son had failed to recognise them.

They all then returned together to the cabin, and Francis soon set out to thank the inhabitants of the village for all the kindness they had shown his parents. He requested them to give the cabin to some poor person who wanted a house, and added to it the little walnut crowned knoll, which he purchased from the parish.

Next day, Marcel and Bertha, having been amply provided with new and comfortable clothes from the neighbouring town, with their son took their seats in the Hamburgh mail, and were received with open arms by the good Annette, who did all she could to supply to them the place of the daughter they had lost.

Soon, surrounded by their children and grandchildren, the aged couple forgot their past sorrows and privations, or only remembered them to bless that merciful God, who, as Marcel said each night to his wife, had turned their mourning into joy, and "made their home a little paradise upon earth."
344. BOTTLING BEER.-My experience contradicts Enquire Within, (in 2,505 ) on bottling beer. I used to allow the bottles to remain uncorked for a day after bottling, and often to my hurt. Messrs Norton, the respectable brewers, have recommended me always to cork as soon as I had done bottling, and the result is that the beer always turns out well. Perhaps your remark may have to do with older ales-what I bottle in porter and ale are about six weeks old.-G.B. Carruther.
345. FEBRUARY FOR THE BOYS AND GIRLS.-In this climate it is hard to prognosticate what sort of weather we may have in February; we are certain, however, to have no "dog-days," and the probabilities are in tavour of snow ; accordingly we have provided for that contingency in the following games.
346. Snow-baLLs.-Snow-balling affords capital fun, and is attended with no ill effects when indulged in by good and generous boys. Such will never stoop to the unfairness of putting stones into their missiles, or hurling them at the weak and unprotected -nor will they practice the sport in a thoroughfare wherewindows might be broken or horses startled-a good broad square, an open court or field, is the best place for snow-balling, which has its excellent points like everything else. It is a good introduction to sharp-shooting, and trains the eye and hand to measure distances. In throwing a snow-ball never aim at your opponent's eye or nose-a capital spot to plant the ball is on the centre of his hat or cap, or just at the middle of the back.
347. Snow Giant.-It is what some boys call "very jolly" to erect a snow giant, the

thing is to do it. A good open space is preferable to any other; and if the stump of an old tree presents itself anything like
that represented below, by no means let it be despised. When we come by-andbye to talk of modelling in clay-as we mean to do-we shall show our young friends how, beneath the delicate proportions of an Apollo or an Antinous, a piece or two of stick does duty thus. Now proceed to roll your snowballs to the place where your giant is to be formed. When you have enough for your purpose, pile these upon one another until you have pleased your fancy. A little water dashed over the sides makes the whole adhere better; and loose snow may be plastered into the spaces to give greater symmetry of form; two stones or bits of coal will make good eyes, and a piece of carrot will pass for a nose. If you do not belong to the anti-tobacco league, you may increase the fun by indulging your giant with a pipe. All that remains now, is to retire to a reasonable distance and snowball your work until it falls to the ground.
348. Snow Castle.-For this game select a field or large playground, and mark out in the snow the limits of your fortress. Let some of your party then form large snowballs, which must be rolled to the side of your castle, and the architects must see these placed one upon another like stones in a wall. Build until your fort is four or five feet high ; then divide your party equally, and toss up for first "innings." A good stock of snowball ammunition should be laid up previous to hostilities, and then to work.


The attacking party endeavours to dislodge those in possession of the fort, and when they do so, the dispossessed take their places.
349. Some of our younger readers may be ignorant that Napoleon I. was an adept.
at this game, and that at the military school of Brienne the "little corporal" defended his snow fort successfully against all comers.
350. The Snow Target.-Very good exercise is afforded by erecting a target, such as is used in archery, and having first made a large number of snowballs and piled them up in the style of cannon balls, at a suitable distance, each player throws a ball in rotation, and tries which can make the best aim at the centre of the target.
351. Shadow Buff.-This can only be well played in the evenings in winter. It is a very quiet game, except in the laughter it causes, and it calls forth all the ingenuity of the players. The white curtain of the window being pulled down, is fastened to the bottom to keep it straight and even. Or a table-cloth or sheet may be tacked against the wall of the apartment. The lamp or candles are removed to the opposite end, and the person chosen to act as blind man, sometimes called "Buffy" (who is not blindfolded), sits with his face to the curtain and his back to the company. Everything being prepared, the players pass between the light and the blind man,


Fig. 1. Charles's shadow, which blind man immediately recognises.
throwing their shadows upon the curtain, and he has to name them. If he succeeds, he is released, and the person he has named
becomes " Buffy." The great fun consists in the players disguising themselves in


Fig. 2. The same Charles disguised in a nightcap, green shade, hair brush, beard, and papa's old coat.


Fig 3. Of course this is Maria's shadow, as we all know.
various ways to deceive "Buffy." This may be done with imitative turbans, and
artificial beards, paper noses, spectacles, \&c. In the annexed figures we have thrown out some suggestions to assist the invention of our young friends. The greatest quietness must be observed on the part of those whose shadows are exhibited, so that they may not be recognised by their voices; but a feigned voice may be used to assist any disguise that may be assumed.


Fig. 4. Maria's shadow, after having put on a false nose, a pair of paper spectacles, and having brought her long curls round to the front to form a beard.
352. A better plan of playing this game is to arrange a room which has folding doors, as in Fig-and the figures to disappear as in 355 .
353. More about Hoops.-Hoops are still in season (see 238). There is a capital game played with hoops, called "Cutters and Smugglers." One or two of the party start off a little in advance of the rest, and afford a fine opportunity for testing the speed and metal of the bowlers. The object of the first, who are the "Smugglers," is to keep a-head of the latter-the "Cutters." These endeavour to overtake them, and to drive their hoops athwart those of the "Smugglers," and to knock their hoops down, in which event they are considered to be captives, and are then to belong to
the "Cutters." This game is sometimes called "Hunt the Fox," and a capital game it is.

254. Hoops with Sails.-Some boys rig their hoops in various ways with a sail, made of a handkerchief or piece of cloth, tied at the corners, and attached to the hoops by four strings, a specimen of which is given in the engraving. The wind catches the sail, and carries the hoop along at a rapid speed.
355. Jumping up to the Ceiling.Perhaps there is no game more mystifying than this, or one which may, if well managed in connection with the game of "Shadow Buff," cause more laughter. A sheet is stretched across the folding doors separating the apartments. All the lights must be removed from that in which the spectators are, and the arrangement in the room which forms the stage for the actors in the puzzle must be as shown in the diagram.

$A$ represents the sheet fastened across between the apartments. $P_{0}$ is a door by which the actors enter upon the scene. $C$ is a stool
placed in front of a second and higher one, $D$, upon which a powerful light is burning, Behind $D$ is $E$, a bench or table. The actor entering at $B$, projects his shadow upon the sheet. At first, as he is close to the sheet the shadow will be only life-size; and it will depend upon the skill of the performer to make the shadow comical and diverting. But as he recedes from the sheet and approaches the light, his shadow will increase in size, so that when close to the light it will assume gigantic proportions. The leap into the clouds is then easily effected. Stepping upon the stool $C$, he springs over the light on to $E$, and to the spectators in the darkened apartment he will appear to have jumped through the ceiling.

356. The Aviary.-One of the company who understands the game, and is possessed of good fluency of speech, acts as exhibitor. A select portion of the assembly are then asked if they would like to see the aviary. In choosing these care must be taken not to include any one who has seen the game played before. One of them is then called in and placed behind curtains, He is asked next what bird in particular he wishes to see-being informed at the same time that the aviary contains a very large assortment.
[A good witty talker may make some fun here by enumerating the various strange birds, possible and impossible, in his collection.]
Should the curtained party wish to see some noble bird such as the eagle he may be put off with the excuse that the imperial creature is unwell or has gone out; but on the event of his choosing to see a goose, a gull, or a magpie, the curtains are drawn aside and he sees himself in a mirror. A
hearty laugh ensues upon this, and the hoaxed party joins the company in their joke upon the one whose turn comes next.
[This game is sometimes called "The Menagerie," and in this case the names of animals are adopted.]
357. Why and Because.-A number of slips of paper are prepared. Upon half of these questions are written, and upon the remaining half answers to them, or what are supposed to be such. The two lots are placed in two vases and shaken together. One side then chooses from the questions and the other from the answers; and the fun begins by each in rotation opening his question paper and demanding its answer of his opposite neighbour. The result is is highly amusing. The questions and answers generally following each other in the most absurd way. For example :-
Q. Why does the Sun rise in the East?
A. Because I've a cold in my head.
Q. Why is the north wind so piercing?
A. Because German silver does quite as well.
Q. Why are the days longer in summer than in winter?
A. Because he is the spoilt child of fortune.
Q. Why do we sleep of a night rather than of a day?
A. Because green peas are scarce at Christmas.
Q. Why is the whole greater than a part ?
A. Because she is said to have dined frequently off cucumbers.
Q. Why is the globe flattened at its poles ?
A. Because papa would be cross otherwise.
Q. Why does a goose stoop when entering a doorway ?
A. Because gloves cleaned at threepence per pair have but a shabby appearance.
Q. Why do you admire moustachios?
A. Because plums are generally unwholesome.
Q. Why is the earth opaque?
A. Because mamma has lost her spectacles.
Q. Why did you not meet me as you promised?
A. Because one trial will prove the fact.
Q. Why do blue and yellow make green when mixed together?
A. Because of their innate depravity.
Q. Why did Shakspere make Juliet so un happy in her love?
A. Because cyanide of potassium always acts so.
358. I had a Little Basket.-This is a fireside game, and may be played by the very youngest. One of the circle begins, turning to his neighbour, with the words "I had a little basket." The party add essed asks " What was in it?" To which the first speaker replies with the name of anything beginning with A , and consisting of one word only, as "Apricots." The
second in turn then addresses the third with "I had a little basket," and upon being asked "What was in it?" replies, "Bullets," or "Brocoli," or anything else, the first letter of which is B; and thus the game goes round until the alphabet has been exhausted. Much fun is caused by the oddity of the article said to have been in the basket : as crocodiles, dumplings, elephants, pigs, \&c., \&c.
[We add a variation upon "I had a little basket," in the following paragraph for older players, and we call it "Have you read the new book P"']
359. Have you Read the New Book? -The company is seated in a circle or semi-circle, and one begins with "Have you read the new book?" He is asked, " What was it about?" and the first speaker replies, as in the previous game, by naming a theme the initial letter of the first word of which begins with $A$, as acoustics, art-unions, accelerated post-transmission, or something of that sort. Thus the query would pass round, and by the exercise of a little ingenuity the various subjects of school themes or of public conversation may be brought in . As a guide to beginners, we add a list of replies :-
Botany, Callsthenics, Double-Dutch, Easyshaving, Fogs, Gardening, Ham-sandwiches, India, Juries, Kant, Logarithms, Mumbo-jumbo, Nuinismatics, Oilcakes, Professor Porson, Quack Doctors, Rolling-pins, Sanscrit, Thames Navigation, Umbiellas, Yaccination, Warblers, Xerxes, Yard-measures, Zoology.
360. Think of a Number.-A considerable amount of amusing mystification is caused by this game. One, in possession of the secret, proposes to one who is not, to "think of a number" in his own mind. Any number, large or small, will do. He must not say what number it is, but must bear it in mind, and if he prefers it he may write it down upon a slate, carefully concealing from view what he has written. The proposer then says, " Double it." This being done, he is next told to add six, or ten, or any other number the proposer chooses, to it. The party to be mystified is then bid to halve it-i. e., to halve the whole sum. This being done, he is told to subtract from it the number he first thought of. Having done so, the proposer, to the wonder of all not in the secret, declares how many remains.

No. 4.
[By means of this puzzle, which is one of the simplest in the world, we have frequently seen a whole room full of people put into a most ludicrous state of fidget, under the impression that there was some witheraft at work.]
361. Solution. - Suppose the number thought of to be five-that doubled would be ten; suppose eight are added, that makes eighteen. The half of this would be nine. Five, the number first thought of, being substracted from this would leave four. Accordingly, "Four" would be the answer. But why ? Because the answer is always the half of the number added to the sum. A little consideration will make this clear. The number thought of is first doubled; then halved; and finally taken away entirely; so that only the half of the number added can possibly remain.
362. MARCH FOR THE BOYS AND GIRLS.-As the month of March, proverbial for winds, presents its welcome face-welcome especially because behind it the sweet spring comes smiling-boys will do well to look up their last year's kites; and should these, having succumbed under the heavy blows and deep discouragements of winter, be no longer either practicable or good looking, they must think of buying, or, what is better, making new ones.
363. How to Make a Kite.-Procure a lath of deal of the length of your proposed kite, and a thin hoop, or piece of hazel for the arched piece-a piece of whalebone or split cane will perhapsdo better. Fasten thearched piece at its centre to the upright lath, and


Fig. 1. bend it to the form you wish, connecting the ends by means of a piece of string, which should twist round the lath. Connect all the points A B C D E by passing the string through each, as in the diagram (fig. 1). Make them fast, and the skeleton of your kite is complete. You must next paste together as many sheets of thin paper as will cover the kite, leaving a margin to be pasted over
the outer edges. Bore two holes in the upright-one about the fifth of the kite's length from the top, and the other about a fourth from the bottom; run through these, and fasten by a knot at the two ends your belly-band string, to which the ball of string by which you fly your kite is afterwards fixed. At the point in the belly-band, when the kite exactly balances, fasten your string.

The wings are made by cutting, half


Fig. 2.
through (see fig. 2), several sheets of white paper, which are afterwards rolled up and fastened at A and B (Fig. 1). The tail, which should be from ten to twelve times the length of the kite, is made by tying bobs of writing paper, folded about an inch broad, and three inches long, at intervals of three inches and a quarter ov a string, with a longer bob, similar to the wings, at the bottom of it. Your kite may now be flown, unless you choose to ornament itto do which we subjoin a hint or two.
364. To Ornament Your Kite.-The simplest way is to buya few "lotteries," or the

commonest kind of prints, and to paste the choicest portion of them at different points on the kite's surface. But this is rather a
dummy way. Here is one far better. Get a box of water-colours (and since a box of flrst-rate "paints" may be now procured

under a warrantry for their excellence from the Royal Society of Arts at the outlay of a shilling, who would be without one?), and paint upon your kite designs-serious or comic-according to your fancy. In our kite-flying days we had no notion of simply buying a kite at a shop, and then flying it. We not only made it ourselves, but we resolutely determined that it should surpass in design and brilliancy of colouring those of our play-fellows. We would not confine ourselves to the beaten track, but made our kite in the form of a bird, or comet, or any other flying object. In our

native village there was an old church, about the walls of which were the remains of sculptured angels. These greatly took our fancy; and, considering that "angels' visits," whether "few and far between, ${ }^{\text {p/ }}$ or
frequent, were always made upon the wing, we concluded to fabricate a grand kite upon that idea. As far as our memory serves us the annexed figure represents the result of our endeavours. The sensation our kite caused in those parts was immense. We claim no merit for the design, which was a literal copy from the stone corbel. The Fuschias, which did duty for wings, were copied from nature.
365. The Cloth Kite.-A kite made of linen or calico is greatly to be preferred to one made of paper, for durability, and also for another quality no less desirable, namely, that of portability. With the paper kite you are always liable, in carrying it to the fields, to get it torn, either through an accident, or by design; whereas, the cloth kite, being folded up in carrying, is no more trouble than a walking-stick would be.
The cloth kite is made in the following manner. Two pieces of thin planed wood are placed across each other as shown in


Fig.1, and held together by means of a piece of wire, bent into a loop, at a. Between this loop a thin wooden collet, or button is placed, in order that the two transverse pieces may work freely on their centres. Thus when not in use the two pieces can be laid longitudinally, one upon the other. The form of the cloth kite differs from the paper kite in being of an oblong
 diamond. The calico being cut the requisite shape and size, has to be hemmed round the edges to prevent their fraying. Its two narrow ends are tied to the top and bottom ends of the longest stick; and the loop of the centre wire is to be passed through the calico. A piece of tape is then attached to those corners of the calico that are to be fastened to the extremities of the cross piece of wood, and another piece of tape is fixed to the wood
itself. When these are tied, and the calica drawn tight, the kite is fit for use.

Not more than two minutes is required to put the whole apparatus in working order, and less time than that, even, will suffice to undo it, and make it again portable.
366. Good Shapes for Kites.-There is no reason in the world why kites should be of the old-fashioned shape. Boys of an inventive turn-and all boys might be inventive if they chose to try-will be proud to vary the torm and decoration of their kites. The Chinese, who are said to be passionately fond of kite-flying, fill the air, at certain seasons of the year, with the semblances of birds, and dragons, and flying fishes, and, no doubt, they manage to derive much satisfaction from the practice.

A good form for a kite is that of an officer. He may be made as tall as seven feet; the wings serving as epaulettes, and a sabertash being substituted for the tail. But for kites of that size very strong string will be necessary.
367. French and English.-This capital sport is suited equally for boys or girls. The boys will prefer to play the game in the open air, or at least in a covered court ; but the girls had better practise it at home, where the clean floor or softer carpet will preserve them and their clothes from injury. Divide your party into two equal portions. These lay hold of each other firmly round the waist, and the foremost, or leader of one party, holds the hands of the leader of the oppositeone. A mark ismade upon the ground midway between the two parties, and the object is to pull each other over it. The party that succeeds in doing this wins the game.

Another way is to get a stout rope. Each party laying hold of one end of this proceeds as above described. Success in this game does not always depend upon mere strength; dexterity often wins when opposed to force unaccompanied by discretion. A skilful leader will know when to pull and when to yield. For instance, one side may be pulling tremendously, and may have almost succeeded in getting your party over the mark. At such a moment, your side, by giving way slightly and suddenly, may succeed in upsetting the whole body of your opponents ; one vigorous tug on your part will then suffice to pull them over the boundary.
368. Battledore and Shuttlecock.There is no need to describe this game; but the remarks we have made above (see 362) upon the subject of kites apply just as strongly here. Every boy and girl ought to know how to make their own toys. Before we proceed to show how easily shuttlecocks may be made, we may state that the game is very ancient. Our ancestors of the fifteenth century appear to have played at it. The Chinese also are great shuttlecock players; but these use their bare hands as battledores, and even their bare feet. They are said to stand in a ring and beat the shuttlecock about in the most dexterous manner.
369. How to Make a Shuttlecock. -Procure a wine cork, punch six holes in one end, and in the holes stick as many cock's feathers; or fold together a slip of stout brown paper or cardboard, till it is as thick and round as a cork, bind it round with some fine string, and sot your feathers firmly in at one end. To fasten the feathers in, dip the quill ends in a solution of gum arabic or glue.

A very little artistic ability will suffice to give to your shuttlecook the form of a


Fig, 1.

bird, or a balloon. The appearance of the last-named object may be obtained by bending the feathers until they meet at the tips, and painting the cork to look like a car with ropes, \&c. (See Fig. 1.)

A battledore may be cut out of a thin plank of wood, or the disused cover of an old book; but a really good one may be made by means of a piece of cane doubled, one end being kept open with a piece of
wood placed at $a$ as in the figure, all that falls below $a$ boing vound round firmly with strong twine. A piece of parchment rather longer than the loop part, in order to leave enough to fold over, is fitted to it and sewn neatly round the cane, such a battledore as this would last for years.

A shuttlecock intended for indoor use should have its lower end covered with a piece of cotton velvet, or cloth, to prevent its making too much noise when struck.
370. The Comical Cards.-An Indoor Game for Wet Weather.-Procure a number of plain cards, or cut a sufficient number for yourself out of a sheet of stiff cardboard or Bristol-board, all of the same size, and proceed to draw upon them a series of grotesque faces, male and female, with droll hats, caps, helmets, wigs, which you may borrow from your collections of caricatures, or invent. These heads should all be of the same size, for a reason which will presently appear ; and in order that they may be so, act as follows:-Pierce small holes in the plain cards at about the situations $a a$ pointed


Fig. 1. out in the annexed cut, and connect the holes with faintly drawnlines. In drawing your faces, touch these holes, as the forehead and upper lip are seen to do in the cut, Fig. 2. Having drawn several of the heads, cut the cards in three portions at the parts indicated Let the divisions by the holes and lines. severed parts may join neatly.
An endless source of amusement may be


Fig. 2.
a lord chancellor.

- afforded by varying the pieces - putting the forehead of one figure on to the nose and cheek of another -and the chin of another. Thus the bald crown of Julius Cæsar may be fitted on to the ruddy cheeks of Master Tommy, or the shako of a militiaman adorn the brow of

371. MARY WILTON.

Mary Wiliton sat in her lonely room, working by the light of a solitary candle. The tears fell from her eyes on the muslin she was embroidering. The room was small and dilapidated, and void of furniture. There were two chairs, and a small, rickety table, by the side of which she sat, and on which were placed a jug of milk, and half a loaf of bread; for Mary was poor, very poor, and could scarcely earn enough to pay for her frugal meals and lodging. A small broken-down bed and chest of drawers, on which were a jug and basin, completed the furniture. A thin shawl and bonnet hung up against the door. There was no fire in the grate, though it was in the depth of winter, and Mary's face and hands were blue with cold.

After working till the candle burnt low in the socket, she rose with a sigh, folded her work, and taking a small worn Bible from her pocket, began to read by the expiring light. The candle went out, and would have left her in utter darkness but for the moon, whose beams pouring in lit up her pale face, as she stood for a moment with clasped hands, and then murmuring, "God tempers the wind to the shorn lamb," knelt down to say her evening prayer. When she rose from her knees her face bore a calm, hopeful expression, and she quickly removed her thin clothing, and crept under the scanty covering of the bed, and in a few moments was sound asleep. Yes, sleep on, poor child of affliction, and take thy rest, for to-morrow's sun will rise, and ere it sets, such an accumulated weight of misery thou wilt have to bear, that, forgetful of God's watchful providence, thou wilt be tempted to exclaim, "Better would it be if I had never been born."

Mary Wilton was the child of industrious and highly respectable parents. Her father was a farmer in Hampshire, who, by dint of his wife's careful management, contrived with some difficulty to make both ends meet. Their only son, Willie, was a constant source of uneasiness to them. Not that he was an undutiful or rebellious boy, but he had a fiery, independent spirit, which frequently led him into mischief. When he was fifteen, he suddenly announced his intention of going to sea; and as his parents
would not thwart him in his earnest wish, set off, carrying a wallet on his back, and with a few shillings in his pocket, to walk to Portsmouth, a distance of thirty miles. When he arrived there, he proceeded at once to the docks, and accosting a goodhumoured looking sailor, asked him if he could find him employment.
"And is it to go to sea that ye'll be afther" said the honest Irishman.

Willie replied that such was his wish.
"Och shure then, honey, its meself that 'll take you to the captin, for he's in want of a boy like yourself, I'm thinking."
Paddy took him to the captain's hotel, and on the way informed Willie that his name was Terence O'Rourke, and that he was boatswain's mate on board her Majesty's frigate the Dauntless, bound to the West Indies. When they arrived at the "George," Terence inquired for Captain Sullivan, and he and his charge were ushered into a room, where a fine-looking elderly gentleman was sitting.
"Plase your honour" said the mate, "here's a young gossoon I picked up just now, and he'll serve as a cabin boy, I'm thinking."

The captain turned on Willie a searching, penetrating gaze, and after a few moments, apparently satisfied with his inspection, asked him his name, and where he came from. Willie answered to the best of his ability, and the captain pronouncing him a smart lad, gave him some good advice, and told him he should be cabin boy on board the Dauntless, and then desired Terence O'Rourke to take care of him and show him the vessel. Terence and Willie retired with their best bow, and Terence then took Willie down again to the docks, showed him the frigate, and took him on board. Willie wrote to his parents, giving them an account of all he had seen and heard, a few days before the Dauntless sailed, and from that time the vessel was never heard of more. Mrs. Wilton's agitation and distress brought on a fever, of which she died. The farmer, after struggling with ill health, and repeated losses, took to his bed and died, after a short illness, and poor Mary was left without a friend in the world to guide and protect her. Upon selling the furniture and farm stock, it was found that there was only an
overplus of five pounds after paying her father's debts, and Mary determined to go up to London, and seek her fortune there. She was only nineteen, and by no means aware of the dangers and difficulties of her position. She was modest and retiring, and never went out except to procure work from her employers, She had now been in London three years, and had managed, by means of working her fingers to the bone, to eke out a scanty livelihood. It was seven years since her brother Willie's departure, and she had quite given him up for lost, but the thought would often arise of how different things would be, if he had never left home.
At daylight Mary arose, and having finished dressing, she again read a portion of the Bible, and knelt down to pray. When she arose she breakfasted off bread, and the milk the landlady's boy brought her, having previously drank a quarter of it on his way. Mary took her purse and paid him for it with her last penny, and then sat down to work.

By dinner-time the embroidery was finished, and after dining on bread and water, she put on her bonnet and shawl, and trudged off on her solitary walk. It was a long and wearying one, though cheered by the reflection that she should be paid. When she arrived at the large handsome house in Grosvenor-square, she felt quite intimidated, and after standing for some time, to summon courage, she nervously rung the bell. It was opened by a page, who asked her what she wanted.
"I have brought home the work for Miss Leicester," said Mary.
The page retired, and returned in a few moments to say that Miss Leicester wished to see her. Mary's heart palpitated violently as she followed the page along broad, carpeted staircases, and he paused at last at a door, opened it, and ushered Mary in, with the remark, "Miss Leicester will be here in a moment." Mary stood astonished at so much splendour which she had never imagined before. While gazing at the rich articles of vertu, spread in tempting confusion, the rustling of a silk dress was heard, and Miss Leicester, the heiress, appeared. "So you have brought the work," she said in a discon-
tented tone, "why did you not let me have it before ?"
"I could not finish it sooner, ma'am," said Mary, humbly, "the pattern was very difficult, and-"
"Oh, that is what you all say," interrupted the young lady, " but let me see it."
Mary showed it to her. It was a fine lawn pocket handkerchief, splendidly em. broidered; but Miss Leicester examined it with a discontented air.
"How much do you charge ?" said she.
"Fifteen shillings, ma'am."
"Exorbitant! I never heard such a price; ten shillings-"
"I am very sorry, ma'am, I cannot do it for less ; indeed I cannot,"" replied Mary, much alarmed.
"Well, I shall see about it ; I can't pay you now, but call again in a day or two;" and ringing the bell, Miss Leicester left the room. The page returned, and Mary, with difficulty repressing her tears, followed him. When she got out of doors her grief burst forth. "Oh what shall I do ?" she thought, "the rent is due to-day and the lardlady will not wait ; I must starve." She covered her face with both her hands. A young man peered insolently under her bonnet, but she did not notice it, and she walked hastily home, trying to repress her misery. She had scarcely reached home, and throwing off her bonnet and shawl, sat down, abandoning herself to despair, before the landlady appeared. She was a coarse, hardfeatured woman, and one could see at once that no favour might be expected from her. She eyed Mary with a long stare.
"The rent is due to day," she said.
"I know it, Mrs. Barton," replied poor Mary, "but the lady has not paid me for my work, and I hope you will wait for a day or two."
"Not I, indeed," replied the vixen, "I'm not going to wait a day, nor an hour ; so tramp, bag and baggage; and see if you can find any fool to take you in for charity."
"Oh, Mrs. Barton, surely you will not be so very unkind. Only wait till to-morrow, and I will go and see the lady again. Have I ever neglected to pay you before?",
Perhaps the sight of Mary's pale face awakened some feeling of compassion in Mrs. Barton's heart ; for muttering, " Well, p'rhaps I may wait till to-morrow," she
left the room. Poor Mary! she cried till she thought her heart would break. She had no bread, and she could not buy any on credit. Oh, how she wept, and sighed till sleep overpowered her, and in her dreams the figure of her landlady appeared, haunting her with her demand for payment. The following morning she awoke late and unrefreshed, and very miserable. Hunger, however, was the predominant feeling, and that she could not satisfy. She struggled with the faintness which overpowered her, however, and endeavoured to walk to Grosvenor-square. She felt at first refreshed by the air ; but on passing a baker's shop, the smell of the new bread entirely overpowered her, and she staggered and fell.

A well-dressed young man was on the other side of the street. On seeing the crowd which was gathering around Mary, he crossed; and pressing forward, caught a glimpse of her face. He exclaimed, in a loud tone, "My sister, as I live !" and pushing through the crowd which opened before him, Willie Wilton, as we have no doubt the reader has guessed before, knelt down before Mary, and earnestly looked into her face.
"Tis she! Oh what a change!" he exclaimed, as he raised her from the ground, and carried her into a chemist's shop close by. It was some time ere Mary recovered from her fainting fit, and when she did, she could not at first believe that the tall, handsome, well-dressed man who was bending over her could be her brother. A few words, however, made her understand the sudden change, and deep was her joy. Willie called a cab, and placing his sister in it, drove to his own lodgings in Craven-street. On his way there, he discovered that his sister was faint from want of food, and laying her on the sofa, tenderly ministered to her wants. When she had eaten, she felt much better, and besought her brother to tell her his adventures. He told her that the Dauntless was wrecked on an island, on her passage out, and all the crew-with the exception of himself and a sailor named Elliot-were drowned.

They lived on this island for some days, subsisting on limpets and muscles. One morning they saw a sail in the distance, and made a bonfire on the highest pinnacle
of rock. This was perceived, and the vessel, after approaching the land, despatched a boat, which conveyed Willie aud Elliot to the ship, which was a French one-the Intrépide, commanded by Captain Le Brun, and bound for California. Here they arrived after a prosperous voyage, and Willie, thoroughly sickened of the sea, applied himself in good earnest to make his fortune. He amassed a considerable quantity of gold, sufficient to maintain him in comfort and independence, and retnrned to England after an absence of seven years. He had never written, wishing to come home and surprise them all; but bitter was his grief and self-reproach when, on reaching the home of his childhood, he found it occupied by another family, and heard that his father and mother were both dead, and that his sister had gone to London. Thither he had followed her, and was almost despairing of finding her, when his attention was attracted by the confusion in the street.

Mary herself had also much to relate. She told him all her troubles, and when she came to the landlady, Willie started up, and said he would give her such a rating as she never had before; but at Mary's entreaty, he sat down pacified, and listened to the conclusion of her story.

After a week, during which her brother tended her carefully, Mary was completely restored to health; and soon after, Willie bought a snug little house in the suburbs of London; and there they lived happily, forgetting the troubles through which they had passed, or only remembering them as a subject for thankfulness and gratitude to the Almighty for having reunited them.

There is a proverb which says, that "when the night is at its darkest point, then the dawn is most near." And this proverb, like our story, gives encouragement to those in affliction, who, when their sorrows are deepest, may cherish the hope that the hour of succour is at hand.

## THE REASON WHY.

372. Why does a bright metal tea-pot produce better tea than a brown or black earthenware one?
Because bright metal radiates but little heat, therefore the water is kept hot much longer, and the strength of the tea is extracted by the heat.
373. But if the earthenvare tea-pot were set by the fire, why would it then make the best tea?
Because the dark earthenware tea-pot is a good absorber of heat, and the heat it would absorb from the fire would more than counterbalance the loss by radiation.
374. How would the metal tea-pot answer if set upon the ho3 by the fire?
The bright metal tea-pot would probably absorb less heat than it would radiate. Therefore it would not answer so well, being set upon the hob, as the earthenware tea-pot.
375. Why should dish covers be plain in orm, and have bright surfaces ?
Because, being bright and smooth, they will not allow heat to escape by radiation.
376. Why should the bottoms and back parts of Kettles and saucepans be allowed to remain black?
Because a thin coating of soot acts as a good absorber of heat, and overcomes the non-absorb. ing quality of the bright surface.
377. But why should soot be prevented from accumulating in flakes at the bottom and sides of kettles and saucepans?
Because, although soot is a good absorber of heat, it is a very bad conductor, an accumulation of it, therefore, would cause a waste of fuel, by retarding the effects of heat.
378. Why should the lids and fronts of kettles and saucepans be kept bright?

Because bright metal will not radiate heat; therefore the heat which is taken up readily through the absorbing and conducting power of the bottom of the vessel, is kept in and economised by the non-radiating property of the bright top and front.

## 379. Does cold radiate as well as heat?

It was once thought that cold radiated as well as heat. But a mass of ice can only be said to radiate cold, by its radiating heat in less abundance than that which is emitted from other bodies surrounding it. It is, therefore, incorrect to speak of the radiation of cold.
380. Why, if you hold a piece of looking. glass at an angle towards the sun, will light fall upon an object opposite to the looking-glass?
Because the rays of the sun are reflected by the looking-glass.
381. Why, when we stand before a mirror, do we see our features therein?
Because the rays of light that fall upon us are reflected upon the bright surface of the mirror.
382. Why, if a plate of bright metal were held sideways before a fire, would

## heat fall upon an object opposite to the

 plate?Because rays of heat may be reflected in the same manner as the rays of light.
383. Why would not the same effect arise if the plate were of a black or dark substance?
Because black and dark substances are not good reflectors of heat.
384. What are the best reflectors of heat?
All smooth,light-coloured, and highly polished surfaces, especially those of metal.
385. Why does meat become cooked more thoroughly and quickly when a tin screen is placed before the fire?
Because the bright tin reflects the rays of heat back again to the meat.
386. Why is reflected heat less intense than the primary heat?
Because it is impossible to collect all the rays, and also because a portion of the caloric, imparting heat to the rays, is absorbed by the air, and by the various other bodies with which the rays come in contact.
387. Can heat be reflected in any great degree of intensity?
Yes; to such a degree that inflammable matters may be ignited by it. If a cannon ball be made red hot, and then be placed in an iron stand between two bright reflectors, inflammable materials, placed in a proper position to catch the reflected rays, will ignite from the heat.
[There is a curious and an exceptional fact with reference to reflected heat, for which we confess that we are unable to give "The Reason Why." It is found that snow, which lies near the trunks of trees or the base of upright stones, melts before that which is at a distance from them, though the sun may shine equally upon both. If a blackened card is placed upon ice or snow under the sun's rays, the frozen body underneath it will be thawed before that which surrounds it. But if we reflect the sun's rays from a metal surface, the result is directly con-trary-the exposed snow is the first to melt, leaving the card standing as upon a pyramid. Snow melts under heat which is reflected from the trees or stones while it withstands the effect of the direct solar rays. In passing through a cemetery this winter (1857), when the snow was deep, we were struck with the circumstance that the snow in front of the headstones facing the sun was completely dissolved, and, in nearly every instance, the space on which the snow had melted assumed a coffinlike shape. This forced itself so much upon our attention that we remained some time to endeavour to analyse the phenomena; and it was not until we remembered the curious effect of reflected heat that we could account for it. It is obvious that the rays falling from the
upper part of the head-stone on to the foot of the grave would be less powerful than those that radiated from the centre of the stone to the centre of the grave. Hence it was that the heat dissolved at the foot of the grave only a narrow piece of snow, which widened towards the centre, and narrosved again as it approached the foot of the head lione, where the lines of radiation would naturally decrease. Such a phenomena would prove sufficient to raise superstition in untutored minds.]
388. Are good reflectors of heat also good absorbers?

No; for reflectors at once send back the heat which they receive, while absorbers retain it. It is obvious, therefore, that reflectors cannot be good absorbers.
389. How do fire-screens contribute to keep rooms cool?
Because the reflector turns away from the persons in the room rays of heat which would otherwise make the warmth excessive.
390. Why are white and light articles of clothing cool?
Because they reflect the rays of heat.
[White, as a colour, is also a bad absorber and conductor.]
391. Why is the air often found excessively hot in chalk districts?
Because the soil reflects upon the objects near to it the heat of the solar ray's.
392. How does the heat of the sun's ray's ultimately become diffused?

It is first absorbed by the earth. Generally speaking, the earth absorbs heat by day, and radiates it by night. In this way an equilibrium of temperature is maintained, which we should not otherwise have the advantage of.
393. Does not the air derive its heat directly from the sun's rays?
Only partially. It is estimated that the air absorbs only one-third of the caloric of the sun's ray's-that is to say, that a ray of solar heat, entering our atmosphere at its most attentuated entering our atmosphere to be about fifty-miles), would, in passing through the atmosphere to the earth, part with only one-third of its calorific element.
394. What becomes of the remaining twothirds of the solar heat?
They are absorbed chiefly by the earth, the great medium of calorific absorption; but some portions are taken up by living things, both animal and vegetable. When the rays of heat strike upon the earth's surface, they are passed from particle to particle into the interior of the earth's crust. Other portions are distributed through the air and water by convection, and a third portion is thrown back into space by radiation.
395. How do we know that heat is ab.
sorbed, and conducted into the internal earth?
It is found that there is a given depth beneath the surface of the globe at which an equal temperature prevails. The depth increases as we travel soath or north from the equator, and corresponds with the shape of the earth's surface, sinking under the valleys, and rising under the hills.
396. Why may we not understand that this internal heat of the earth arises, as has been supposed by many philosophers, from internal combustion?
Because recent investigations have thrown considerable and satisfactory light upon the subject. It has been ascertained that the internal temperature of the earth increases to a certain depth, one degree in every fifty feet. But that, below a certain depth the temperature begins to decline, and continues to do so with every increase of depth,

## 397. Do plants absorb heat ?

Yes. They both absorb and radiate heat under varying circumstances. The majestic tree, the meek flower, the unpretending grass, all perform a part in the grand alchemy of nature.
[When we gaze upon a rose it is not its beauty alone that should impress us : every moment of that flower's life is devoted to the fulfilment of its part in the grand scheme of the universe. It decomposes the rays of solar light, and sends the pink rays only to our eyes. It absorbs or radiates heat, according to the temperature of the ærial mantle that wraps alike the flower and the man. It distils the gaseous vapours, and restores to man the vital air on which he lives. It takes into its own substance, and incorporates with its own frame, the carbon and the hydrogen of which man has no immediate need. It drinks the dew-drop or the rain-drop, and gives forth its sweet odour as a thanksgiving. And when it dies, it preaches eloquently to beauty, pointing to the end that is to come!] -From a highly interesting and instructive work "The Reason Why," price 2s. $6 d$., 352 pages.

## 398. MUTTON, AND ALL ITS USES.

 -TO CHOOSE MUTTON.-There is great diversity of opinion as to which breed of sheep produces the finest and best flavoured meat. The south down is generally considered to be the best, but I have heard great difference of opinion ; some say the Scotch Chevoit is more full flavoured, and closer in the grain; then you will have another class of epicures tell you that nothing equals the Welsh mutton for richness of flavour. In my opinion, if you can get either of them, you may be well contented. I know it is useless to say that mutton is considered best when it is fiveyears old; for it is alnost an impossibility to find such a thing now-a-days; if it can be got three year old, I think it cannot be bettered much. Mutton to roast, and, in fact, however you may wish to cook it, should always be allowed to hang as long as it will without spoiling. Young mutton will, if squeezed with the fingers, feel tender, if old it will remain wrinkled; the fat will also be clammy and fibrous; in ram mutton the grain is close and of a deep red, and the fat spongy ; in ewe mutton, the flesh is paler than in the wether, and has a closer grain. Short-shanked mutton is reckoned the best. The best mutton to boil is the half-bred Southdown and Leicester, the fat being of a lighter colour than the other breeds.

## 399. TIME REQUIRED FOR COOK-

 ING. - Mutton should be roasted ten minutes to the pound, and boiled a quarter of an hour.400. HAUNCH OF MUTTON (PLAIN). -With plain roast or boiled joints of mutton, you should observe simplicity and cleanliness in cooking them. The haunch of mutton should hang as long as it will keep good; then cut off the shank and trim the flap, or under part, put it down to a brisk fire, keeping it near the fire for the first ten minutes, and then at a moderate distance until done; before taking up, dredge it with a little flour and put it closer to the fire to froth it up; then dish; pour a pint of boiling water over the meat, to which add a little colouring and catsup.
401. ANOTHER WAY.-Take a haunch of mutton well hung, trim it properly, tie it in a cloth, and boil one hour ; then take it up and roast one hour and a quarter. When nearly the time to dish, baste it with a little butter in the ladle, dredge it with flour and salt, put it near the fire and turn quickly, to froth it, then dish and serve with a rich gravy (see Mock Venison 402). (This is a very favourite dish at one of the clubs in the West-end of London).
402. MOCK VENISON.-Cut a hind quarter of fat mutton like a haunch of venison; get your butcher to let it lie in some sheep's blood five or six hours; then let it hang in cold weather for a month, or as long as it will keep good ; then rub it over with some fresh butter, and strew over it
a mixture of salt and flour, butter a sheet of paper, and lay over it, and another over that, or some paste, and tie it round ; if it is large it will take two hours and a half to roast. Before it is taken up, take off the paper or paste and baste it well with butter ; flour it, and let it turn quickly so as to put a nice froth on it; serve it with good made gravy thus : 1 pint of stock gravy, 1 gill of port wine, a little pepper and salt, some catsup, a little thickening, and a spoonful of currant jelly-there should also be currant jelly on the table.
403. TO HASH MU'TTON VENISON FASHION (WITHOUT ONIONS).-Take three pints of stock gravy, put it into a saucepan, and let it boil ; then add a gill of port wine, some cayenne pepper and salt, some flour to thicken, and a little bit of butter. Put your meat cut into slices in, and let it simmer four or five minutes. Do not let it boil or the meat will become hard ; make a nice puff paste (see 201), roll it out, then cut it into diamonds and fry them in boiling fat (see 198); then dish the hash, placing the sippits of puff paste ronnd the dish. Currant jelly on table.
404. TO HASH MUTTON IN THE COMMON HOMELY WAY.-Take three pints of stock gravy, a large onion cut into rings, some pepper and salt; let them boil until the onion is done; then add a little thickening, or, if there is any cold melted butter left from the day before, it will do as well ; put in your meat, and let it simmer for ten minutes. Toast a round of bread cut into diamonds, and place it round the dish; then pour the hash into the dish, and serve with mealey potatoes. (To cooo $\bar{k}$, see 203).
405. SAIDDLE OF MUTTON. - To cook plain, (see 287).-Take off the skin near the tail without taking it quite off or breaking it; take some lean ham, green onions, parsley, thyme, and sweet herbs, all chopped together, with some allspice, pepper, and salt, strew it over the mutton where the skin is taken off; put the skin over it neatly and tie over it some buttered paper; roast it; when it is nearly done, take off the paper, strew over it some grated bread crumbs, and when it is nicely browned take it up, serve with some rich gravy (see Mocle Venison, and to carve a saddle, see 208 ; to hash, see
403,434 ).
406. THE LEG OF MUTTON may be cooked the same as the haunch, 400 , or
407. BOILED LEG OF MUTTON (PLAIN).-Boil a leg of mutton, allowing a quarter of an hour to each pound, putting it in cold water ; and when done, serve with caper sauce, made thus :-
408. CAPER SAUCE.-Take a little butter (see 208), to which add two tablespoonsful of the best French capers, a little of the vinegar they are pickled in; if possible, every caper should be cut in two. Serve in a boat. The proper vegetables for this joint are turnips, either mashed or plain, and carrots. When spinach is in season, it is very good with it.
409. THE LEG BOILED WITH CAULIFLOWERS AND SPINACH.Take a leg of mutton and boil it in a cloth; have three or four cauliflowers boiled in milk and water ; pull them into sprigs, and stew them in butter, pepper, salt, and a little milk. Stew some spinach in a saucepan; put to the spinach a quarter of a pint of gravy, out of the mutton saucepan, a piece of butter and flour; when it is done put the mutton in the middle of the dish, the spinach round it, and the cauliflowers over all. The butter the cauliflower was boiled in must be poured over it, and it must be melted like a fine smooth cream.
410. A LEG OF MUTTON STUFFED WITH OYSTERS.-Make a forcemeat of beef suet, chopped small, two eggs boiled hard, a tablespoonful of anchovy sauce, a small onion, thyme, and a dozen oysters, cut very small, some grated nutmegs, pepper, salt, and crumbs of bread, and one egg beaten, all mixed up together; stuff the mutton under the skin, in the thickest part under the flap and at the knuckle; serve with a sauce made thus : stew a dozen oysters; add a little port wine, some anchovy sauce, and a little thickening; pour it over the mutton. Having been prepared in this way, it may either be roast or boiled, whichever you prefer.
411. MÚTTON CUTLETS.-Let a leg of mutton hang as long as it will keep, cut the collops from it the cross way, season with pepper and salt, cut two or three chalots and a little parsley very small, and strew them over; then flour the collops, put them into a stew-pan, with a little butter ; they will be done in a quarter of an
hour or twenty minutes; put to them half a pint of stock gravy, a little cayenne, some catsup, more flour if the sauce is not thick enough, let it simmer a few minutes, garnish with pickles cut into squares.
412. ROAST SHOULDER OF MUTTON AND ONION SAUCE.-This is a very favourite dish in humble life. Take a shoulder of mutton, not too fat, and roast it, allowing ten minutes to the pound; when it is done, serve with onion sauce (see 200) in a tureen. Some people smother it with this sauce; but, I think, the best plan is as I have directed, for some people have an aversion to onions, and by my plan they are not compelled to eat them or taste their flavour. The shoulder of mutton may be cooked in all other ways the same as the haunch.
413. BOILED SHOULDER, WITH RICE.-Take a shoulder of mutton, and half boil it, put in a stew-pan with two quarts of the liquor that it was boiled in, a quarter of a pound of rice, two tablespoonsful of mushroom catsup, with a little beaten mace; let it stew until the rice is tender, then take up the mutton and keep it hot; put to the rice a pint of milk, a piece of butter rolled in flour, stir it well, and let it boil a few minutes; lay the mutton in the dish, and pour the rice over it.
414. ROAST LOIN OF MUTTON PLAIN.-This joint is very seldom roasted, being the part from whence the best chops come; but it may be roasted plain (ses Haunch, 400), or as
415. OXFORD HARE.-Bone a loin of mutton ; make a stuffing with bread crumbs, chopped parsley, and sweet herbs, grated lemon peel, nutmeg, pepper, salt, chopped suet, an egg, all mixed together; put this where the bones come from ; skewer it up, and roast it two hours. Serve with a rich gravy (see Mock Venison). There should be currant jelly on the table.
416. HARRICO MUTTON.-Cut the neck or the loin into chops, fry them, flour them, put them into a stew-pan with three pints of stock gravy, a carrot and turnip sliced, an onion stuck with cloves, a little pepper and salt; let them stew until quite tender; they will take three hours, as they should do gently. Take out the mutton, strain the sauce, put into it carrots, turnips,
and celery already boiled and cut into squares ; simmer these a minute or two in the sauce, lay the mutton on the dish, pour the sauce over it. If it cannot be served immediately, put the mutton into the sauce to keep hot.
417. MUTTON CHOP.-To cook a mutton chop well is a great art ; they should not be cut too thin, and should be done over a nice bright coal fire, they will take from eight to ten minutes; when the fat is transparent and the lean feels hard, the chop is done; it should be served on a very hot plate, and with a nice mealy potato hot. In dressing a chop never stick a fork into it. Tomato sauce is likewise served with it.
418. TOMATO SAUCE.-Take four ripe tomatas, slice them, squeeze out the seeds and water, and put them with salt, cayenne pepper, pounded mace, and allspice, into a stew-pan without any water, and let them simmer slowly in their own liquor till quite dissolved ; pass them through a fine hair sive, beat them up with a bit of butter, and serve over the chops.
419. BREAST OF MUTTON may be boiled plain and served the same as the leg (409), or it may be collared thus:-
420. COLLARED BREAST OF MUT-TON.-Take the skin off and bone it, roll and tie it round with tape, put a pint of milk and two ounces of butter into the drip-ping-pan, and baste it well while it is roasting. Serve with a rich sauce (see Mock Venison, 402). Currant jelly to be on the table.
421. NECK OF MUTTON.-The neck of mutton may be boiled plain, as the leg, or as
422. IRISH STEW.-Cut it into cutlets and boil it gently for an hour and a half with two large onions cut up an put in with it. Have some potatoes ready cooked, mash them and put into the saucepan with the meat. Mind and see that there is not too much liquor in the saucepan, for it should not be too thin ; season to taste with pepper and salt, then serve, laying the cutlets round the dish and the mashed potatoes on them, with some whole potatoes in the middle. This is best on a cold day. The neck may be roasted plain the same as the haunch, or baked over potatoes, but I should not recommend any one to hash it,
for it does not make a good hash, and is far sweeter cold than any other part of the sheep. The neck is the part from which Harico is made, the same as the Loin (se Loin, 414).

423. NAMES OF THE JOINTS OF
UTTON.-MUTTON.-
A. Shanks.
${ }^{B}$. Leg.
C. Flap. $\}$ The Haunch.
D. Chump Loin.
E. Chop Loin.
F. Best end of the Neck.
G. Scrag.
H. Breast.
I. Shoulder.
$J$. Head.
424. TO BROIL SHEEP'S KIDNEYS. -Take off the skin, split them open lengthways without dividing them, run a skewer through them to keep open, and lay over a good brisk fire, with the cut sides towards it; turn three times, and they will be done in ten minutes; sprinkle over them a little pepper and salt, and serve; a rasher of fat bacon is eaten with them sometimes.
425. SHEEP'S HEAD. - The sheep's head is hardly worth cooking in any other
way than as broth. To make broth, get a fine head, and scald the wool off the same as the calves head; then put it into a saucepan with a gallon of water, and let it boil gently for three hours; having put in with the head a carrot and turnip sliced, and an onion or two, the skum should be taken off five or six times, so as to get it perfectly free from grease; take out the head, cut the meat from the bones into squares, and put them into the saucepan again with the liquor, leaving the turnips, carrots, and onions in also; season with pepper and salt, add a little flour to thicken, and serve in basons, with some toast cut into squares in the bason, and a little chopped parsley, fresh. The scrag end of the neck, shank bones, or feet, will make broth as well as the head.
426. THINGS IN SEASON IN March.-Meat.-Beef, Mutton, Pork, and House-lamb.

Poultry and Game.-Hares, Rabbits, Woodcocks, Snipes, Wild Fowl, Turkeys, Capons, Pullets, Fowls, Chickens, Pigeons, and Larks.

Fish.-Carp, Tench, Lampreys, Eels, Pike, Cod, Soles, Flounders, Plaice, Turbot, Skate, Smelts, Whitings, Lobsters, Crabs, Crayfish, Prawns, Oysters. Salmon coming in.

Vegetables.-Cabbage, Savoys, Colewort, Sprouts, Brocoli, Sea-kale, Leeks, Onions, Beet, Endive, Sorrel, Celery, Spinach, Garlic, Potatoes, Turnips, Parsnips, Shelots, Kidney-beans (forced), Lettuces, Cresses, \&c.

Fruit.-Apples, Pears, Oranges, and Strawberries (forced). Mary Bodkin.
427. AMERICAN PUDDING.-I send herewith a receipt of an American pudding, which, having tried, I can recommend as being exceedingly nice. Take two teaspoonsful of flour, one teaspoonful of milk, one teaspoonful of moist sugar, one egg, two tablesspoonsful of butter, one teaspoonful of cream of tartar, one teaspoonful of carbonate of soda. Flavour with lemon peel, bake till just set in moderate oven. Serve with sweet sauce and wine, if prefered. A nice cheap pudding, costing about $9 \mathrm{~d} .-\mathrm{J}$. S. C.
428. A NEW PASTIME.-For the sake of home enjoyments, it is desirable from time to time to have something new. The best entertainments weary when oft-repeated. It is also very important to blend with our amusements the sources of instruction, and of elevated thought, provided that these can be secured without so far interfering with the entertainment as to make it partake more of the character of a study than of a pastime. In the new amusement which we are about to propose, we think the two elements of entertainment and instruction are so evenly combined, that the game will be found to be a very pleasant and profitable one. We propose to call it

## "That Reminds Me,"

and give the following explanation of its rules. We will suppose there are eight persons seated round a table :-
Mrs. A. names an object, such as a Piece of Coal, and says, "That reminds me of the fire"-
Mr. B. "And the social cup of tea."
Mrs. C. "And of China whence it comes."
Mr. D. "And of Canton where the war is."
Mrs. E. "And of the poor who have no fire;",
Mrs. F. "And of the workers in the mines."
Mrs. G. "Who often die by sad explosions."
Mrs. H. "Caused by the gas of coal."
Mr. A. "Which Davy lamps would have prevented."
[It has now come round to Mr. B., who, as Mr . A. commenced, has the option of starting a fresh subject, or continuing that of coal. He therefore uses the words "That reminds me," thus-
Mr. B. "That reminds me of Sir Humphrey Davey."
Mrs. C. "Who took much pains to prevent explosions.""

Mrs. D. "By making lamps of wire gauze."
Mrs. E. "Through which the flame will not ignite the gas."

Mr. F. "Gas lights our street."
Mrs. G. "Inflates balloons."
Mrs. H. "Is used for heat and cookery."
Mr. A. " $\Lambda$ nd all our towns look lit with stars."
Mrs. B. "When from a distance viewed."
Mrs. C. (who has now the option of continuing the subject, or changing it, says), Iron"Thatreminds me of the wonders wrought by coal."
Mrs. D. "And of steam."
Mrs. E. "They form the trinity of progress."
Mr. F. "They cleave the ocean.,"
Mrs. H. "They defy the winds."
Mr. A. "They're swifter than the hound."
Mrs. B. "They're grand in peace, and terrible in war."
Mrs.C. "War, that reminds me of Napoleon."
Mr. D. "Who was by birth a Corsican."
[Here may follow the chief events of Napo-
leon's life.]

In this way every conceivable subject may be made the theme of an instructive pastime. Each person is required to say only one sentence, or to state only one fact. It will frequently happen that there will be opportunities for the livelier spirits of the company to offer a joke, such as might have been given respecting the habit of ladies gossiping over their tea-cups, \&c. An hour devoted to this exercise would, we are sure, be agreeably spent, and would serve very materially to quicken the faculties, and enlarge the information of all who took part in it.

## 429. ANSIVERS TO CHARADE,

 ENIGMA, \&c.-At length we have received answers to Charade 27, and Enigma 248. ," The former was first answered by "a wife," who has thereby won the wreath for wedded ladies. She signs her name "Willy," or "Nelly," we can scarcely decide which. The next answer received was from "a husband" (A. J.), and in communicating his solution he assured us that he had not "the first" for a wife. Then came another, whom we will allow to speak for herself:-"I think the answer must be Shrewsbury; though here I would premise that I belong to neither of the classes of husbands, wives, or lovers, whom you have especially addressed. theews are what lovers must avoid choosing if But should tescape matrimonial unhappiness. have chosen ey have been so unfortunate as to learn how to tame her. At any rate they would be foolish (nay, worse than that-only in Charades we do not speak seriously) to hurry themselves into the grave in consequence; for, who knows but that Fate may have it in, store for If the to Bury their wives instead of themselves. If the husbands can make up their minds to their wives, it may be they may visit the bury whose name implies that shrews have abounded there, at least in the churchyards, But hush such injurious insinuations; do not whisper that a shrew was ever found in Shrewsbury, that eminent place for cakes, beautiful situa: tion, warlike scenes, antakes, beautiful situa,
establishments.-J.D. P."
And lastly, another from a lady, who gives us no hint as to her Hymenial condition:-
430. CHARADE 27.
"Well Wilkinson, and what's the news?"
"Why not exactly, what I'd choose,
My wife and Tom's will not excuse
Our staying out last night excus
Mrpatience, they are downright shrews,
"Now Will, to what I say, attend,
You know I always am your friend, What is it all these jarrings send; But just a moment think?
Because your earnings you will spend, As well as time, in drink.
"Your wife is a good wife I know, And would you Bury all your woe, You must on her more care bestow; And then what should we see?
No wife in Shrewsbury would show More quiet love than she.
Kentish Town.
Jare P.
The same lady favours us with the enswer
to Enigma 248:-

## 411. ENIGMA 248.

In a Mother's boudoir a rich bound book By a maiden is open'd with smiling look; But now its page does a tear-drop stain, Its tender pathos is fraught with pain;
Its clasps are fasten'd, and smiles of mirth Again on her blooming brow find birth, $A \mathrm{~s}$ a youth appears, who this day has been Appointed a PAGE to the Island Queen.
"Adolphus dear, we must not forget Our lessons are all unfinished yet: I wish, Oh! I wish they were far away, "In just in the humour for sport to-day.
With their classical nate hateful books, They tire my classical names and musty looks; Their mystical riches I never shall brain", The brother said, smiling " Come sister Here is something that tells you to persevere Do look at this ant, how unce esing she strains To enrich her store from yon heap of grains; She will bear them away, the one by one, Before all her toiling and work is done; And she from her wearied efforts can rest, $W$ ith plenty enshrined in her little uest. So sister, mine, by no sudden leap
Can we rest from our labour on learning's
steep; steep;
Appliance unwearied, determinate will,
With light of knowledge the mind must fill.
"Away to our studies; to-morrow shall we
For once from the trammels of lessons be free;
'Tis the Lord Mayor's-day, aud they now Tis the Lord Mayor's-day, aud they now pre-
pare A Page-ant surpassingly grand and fair.
Kentish Town. Kentish Town.

## Jane $P$.

432. SWALLOWS.-As a proof of the valuable services rendered by swallows, it is estimated that one of these birds will destroy, at a low calculation, 900 insects per day; and when it is considered that some insects produce as many as nine generations in a summer, the state of the air but for these birds may be readily conceived. One kind of insect alone might produce $560,970,489,000,000,000$ of its race in a single year.
433. THE COW-HERD.

A young heifer was grazing on a green pasture land which lay close to a garden. The boy who was employed in tending the animal happened to look up a cherry-tree, whose fruit hung in such rich and tempting clusters, that he longed to pluck and eat some of the glowing berries-so he left off watching the cow, and clambered up the tree.
Now, as soon as the beast was left to itself, it abandoned the soft green herbage, and broke into the garden, where it began browsing on the herbs and flowers, many of which it crushed beneath its feet. No sooner was this perceived by the boy than he sprang from the tree, and running into the garden, seized the heifer, and, in a fit of rage, began to abuse and treat it cruelly.

His father, who had, from a little distance, observed all that had passed, now approached, and looking gravely at him, said: "Tell me, my son, whether is this chastisement more justly due unto thee or unto the beast, which cannot discern right from wrong? Wast thou less greedy in the indulgence of thine appetite than the creature whom it was thy duty to lead? And how canst thou then dare to exercise so pitiless a judgment, forgetting the while thine own responsibility, and thy $\sin$ ?"

The boy hung down his head and blushed.

## 434. THE ROBIN RED-BREAST.

A robin redbreast came in the depth of winter to a cottage window, looking wistfully as if it had a mind to come in. So the peasant opened the window, and admitted the trustful little being within his dwelling: There it picked up crumbs from off the floor, and soon became familiar with the children of the house, who grew very fond of it. But on the approach of spring, when the trees burst into leaf, the peasant opened his window and let his little guest escape; so the robin flew into the neighbouring copse, and there sariz his joyous songs.

Summer soon past away, and on the return of winter, the robin appeared again at the window, bringing his little mate with him. Then the peasant called together his children, who rejoiced as they saw the two birds looking trustfully around;
and the children said, "The little birds look at us, as if they wished to say something to us !" The father answered, "lf they could speak, they would surely say, 'Trustfulness begets trust, and love ever awakens love!'"-Krummacher.

## 435. THE CHILD AND THE LOOK. ING-GLASS

The little hero of my tale,
Brought up in a retir'd vale,
Was summon'd from his native green
To visit friends he ne'er had seen.
He view'd the various objects o'er,
He had not once beheld before.
A Looking-Glass beside him placed,
His own resemblance straightway trac'd
Witin pleasure he the figure sees,
(For self is ever sure to please),
And nature's frailty was confessed
Already in his childish breast.
Before the glass he moulds his face-
The shadow renders the grimace:
And when, with rage, he lifts his fist,
He sees the wrathful form resist.
At length, of empty threats grown tir'd, Revenge his kindling bosom fir'd:
And, at the visionary foe,
He fiercely aims an angry blow!
Soon his weak, wounded hands display
The bleeding forfeit of the fray :
Trembling with agony and rage,
Determin'd still the war to wage-
Again he strikes the shatter'd glass;
And then to grief his passions pass.
The watchful mother, who had been
Gazing a moment on the scene,
Thus kindly spoke :-"Dry up your tears, And tranquillise a mother's fears :
Now tell me-was it your grimace
That rais'd the same ill-natur'd face?"
"Yes," said the child. "Now look againBeholu how passion's burst is vain.
You smile-the smile returns: and see
The same delight on both must be.
The friendly hand to you he gives,
For that which he from you receives.
Nor does resentment warm his breast, Since you that feeling have suppress'd. This is a lesson, bear in mind, That should be known by all mankind For evil done, we must expect An ill-return, or cold neglect:
While goodness always finds a friend, And virtue will with virtue blend!"'
436. P's AND PEA SOUP.-Some lover of pea soup has perpetrated the following P-Qliarly alliterative stanza :-

PEA SOUP.
Of all the P's in Johnson's Dictionary, Pe-tard, Pe-ruse Pe-ruke, Pe-titionary, Pe-cock, Pe-culiar, Pe-dant and Pe-nal, Pe-remptory, Pe-nates, and Pe-tal, Pe-cuniary, Pe-riphery, and Pe-rish; Pe-rennial, Pe-trescent, Pee-vish; The P I most approve of all the group, Is Pea, the son of Pod, and sire of Soun!
437. TRAPPING: including the Method of Capturing by Traps, Snares, and Neits, all hinds of Birds, Quadrupeds, Fish, and Vermin, usually so taken.-At the first glance, the reader may inquire, what is the use of such information ? -a question for which we shall find a very ready
anglers, and youths who like adventures after the few wild animals still spared by the march of civilisation, will find ample instruction to guide them in their favourite pursuits. To say nothing of the advantages offered to those who may set upon their tables good savoury dishes as the reward of their pastimes. Whether, therefore, we are


Fig. 1.-SNARE for A Hare.
answer. The Corner Cupboard is to be a work of reference upon all subjects useful in domestic life. Now our readers, whether in town or country, will find the utility of thisinformation, which we have been unable to obtain from any existing work. The housewife finds the incursions of rats and mice annoying: she will here find a remedy. The gardener finds his shrubs cropped, and valuable young trees barked by mice, rabbits, and hares: here he will find a remedy. The sportsman finds his preserves impoverished by the ravages of stoats, weasels, jays,
inhabitants of great cities or of rural retreats, the instructions here given will be found to be of permanent value.
438. Hares.-A facetious writer upon cookery, when giving directions for cooking a hare, commenced thus :-"First catch your hare." We shall now give directions by which hares, wherever they frequent, may be caught, and when they are caught, those who want to cook them, as they should be cooked, will only have to refer to 298 , 299,300 , and 301 , and they will be informed of various ways by which the hares they


Fig. 2.-DOWN-FALL FOR VARIOUS BIRDS.
foxes, \&c. : and here he will find his remedy. The farmer finds his barns over-run, and his crops destroyed by feathered and furred enemies : and here he also finds his remedy. While naturalists, bird-fanciers, sportsmen,
have caught may be satisfactorily prepared for the table.
439. Hares are caught by steel traps (Fig. 7.), by wire snares (Fig. 1.), and also by nets. The traps mostly used are either
mares or steel traps. In order to trap them stccessfully it is requisite to know something of their hakits. Hares feed in the evenings, and sleep in their "form" or


Fig. 3.
SNARE FOR A RABBIT, SET MITH A SPRINGLE.
"seats" during the day. They are very active and playful during moonlight nights. Their running consists of a succession of leaps; and as they are very swift and strong, considerable strength is required in the traps that are to hold them. The pregnancy of the doe lasts a month ; and she generally produces a litter of three or four in number, and she litters about four times in a year. The young ones leave the


Fig. 4.
SPARROW NET, FOR TAKING SPARROWS, AND MANY OTHER KINDS OF BIRDS AFTER SUNSET.
old ones after about twenty days, when they form seats, and seldom go away from the place where they were brought forth. A hare lives about eifht vears.
440. It is said that old hares that have long been attached to a place will drive away new comers. After a rainy night


Fig. 5.
OHRSE-HAIR LOOP-TRAPS, FOR TAKING SMALL BIRDS OF ALL KINDS, AND PRESERVING THEM UNINJURED.
hares leave cover on account of the wet; they generally, under such circumstances, run the high-ways or stony lanes. When the ground is dry, and the wind cold, hares then like the paths that are covered with leaves. In looking for a hare, much de-


Fig. 6.
RABBIT CAUGHT BY THE SNARE AND SPRINGLE.
pends upon the season : if it be spring, she will be found upon the fallows, or green corn; during the autumn she will frequent the stubbles and turnios and in winter,
she will not unfrequently sit near houses, in brambles, or bushes of thorns.
441. From the frequency with which the hare goes over the same ground, she establishes, both in cover and out of it, what is termed a "run"-a beaten track, over which she is almost sure to pass within a short space of time. The run is distinguished by the leaves and grass being pressed down, by small brambles being turned aside, and in fallow grounds by a smoothness that is imparted to the surface, and sometimes by the track of feet. It is in these runs that the traps should be set.
442. The Steel Trap is constructed the same as the "gin" used for rats, but is somewhat stronger in the spring. These steel traps, of various sizes and degrees of strength, are sold by most ironmongers, and by dealers in agricultural implements. The steel trap is simply buried in the run, and leaves, grass, or earth strewed over its
string, otherwise the hare will carry away
the trap.
443, Wire Snares are also very effective traps (Fig. 1.). They are made of fine copper wires, and being inexpensive, a number of them may be set where hares abound. For lares, three wires are required; for one wire, to be of adequate strength, would be so stiff that it would not act. The wires are made to form a common running loop, just such as we form with string; only the wires are so arranged that they all unite to form the one loop. No ingenious person could fail to form the loop, after a few minutes handling of the wire. It is so simple that it will suggest itself. Well, the loop made, it is set across a run, so that the top of the loop stands, say about six inches from the ground; and in order to keep it in its proper position a peg of wood is driven in the ground a little way from the run, and in
surface, so as to give no appearance of an unusual character. It is unnecessary to bait the trap. But there is a method of attracting the hare to the spot, which only regular hare-catchers would be likely to resort to, and by them it has been found very effectual. It is to save, when you open a hare, the urinary bladder, and to keep it (no matter how long) until you intend to trap another. Then squeeze out a few drops of the urine over the place where the trap is set, and trail the bladder along the ground, leading to the trap-that is, tie it to a string, and drag it along, so as to leave the scent upon the run. If there is a hare alive near the spot, it is sure to be caught by these means. Precaution should be taken to tie the trap to a bough, or a peg in the ground, by a piece of strong
the top of the peg there is a slit, which serves to catch the ends of the wires and hold them in position. The wires must be tied firmly at the end to a string, which may lie on the ground; the end of the string should be tied to a bough, sufficiently high from the ground to yield a little when it is pulled. This yielding of the bough prevents the hare from snapping the string, which it would otherwise do in its endeavours to escape.
444. Netting Hares is effected in the same way as the netting of rabbits, the nets being placed across the runs, instead of before the holes. But it is very seldom resorted to, as it is less practicable than the other methods.
445. Rabbits are trapped in the same way as hares, but the traps are not required
to be of the same strength. They are also taken by some other methods not applicable to the catching of hares. Rabbits are well known to burrow in the earth, and also to keep much closer at home than hares.
446. The Rabbit Snare is made and set the same as for a hare, only two wires are used instead of three. But there is an ingenious method of taking rabbits by single wires, and what is called a "springle." A strong and springy stick is stuck deep into the ground, in an upright direction; its smaller end is then bent over, and also buried in the ground sufficiently to keep it down. To this end a wire is tied by a short string, and when the rabbit is caught his first jump pulls the end of the springle out of the ground, and it then lifts the rabbit completely from terra firma, thereby depriving him of all power of escape.
447. The Steel Trap is set for rabbits the same as for hares, and the bladder of a previous rabbit is made precisely the same use of, and with equal effect.
448. Rabbits are Netted with the aid of ferrets. A ferret being put intc a hole, a square net-about a yard square-is simply thrown over the mouth of the hole or holes; the rabbit runs out with a jump, and is instantly entangled in the net, so that escape is impossible. This mode of netting is far easier and more expeditious than the loop-netting, in which the net is made as a bag, drawn together by a running string, for this method gives considerable trouble to get the rabbit out, whereas it is perfectly easy to take him from the square net.
449. The form of trap called the " tipe" is only applicable to large warrens, or to places where rabbits so abound as to make it a point of importance to reduce their numbers. A large pit is dug in the ground, and over this is a false surface, just like the ground, so evenly balauced by a hinge that the weight of a rabbit will turn it completely over. The trap being thus prepared, the door is kept fixed for a night or two to give the rabbits confidence. Then it is set free, and in this way large numbers of rabbits may be taken in a single night.
450. Birds.-There are various methods of trapping birds; and the species of hirds, with the means of trapping them, are
so numerous, that we will first point out a few systems of trapping and snaring which apply to a great variety of birds, and afterwards will describe, under the names of particular birds, the modes adopted specially for them.
451. The Down-fall (Fig. 2) is an effective trap for taking Field-fares, Thrushes, Redwings, Blackbirds, Larks, Sparrows, Starlings, and all birds that congregate upon the ground. It is most effective when snow lies upon the ground, for then the birds being hungry are less shy in the pursuit of food. The trap consists of an iron or wooden hoop (iron ones are to be preferred), covered with a net with meshes of about one inch. The lighter the net the better. The hoop is put to stand at an angle, as in the engraving, and is propped up by a piece of stick about two feet in length. At the bottom of the net, and lying upon that part of the hoop which rests upon the ground, is placed a heavy stone, in such a way, that directly the stick is withdrawn, the net will drop down rapidly upon the birds. A long string is tied to the stick, and is held by a person who keeps as far away from the trap as is compatible with his being able to see when birds are under it. It is best not to drop the trap when a single bird enters, as it will serve as a decoy, and a little patience will be rewarded by the capture of a number of birds, instead of one. The hoop should be about three or four feet in diameter.
452. To Bait the Down-fall, the snow should be scrapedaway, not oniy: mmediately underneath the trap, but for some distance around it, and food should be strewed under the net, and a little also on the outside, to attract the birds. The kind of bait to be employed depends upon the description of birds you desire to catch. Fieldfares feed upon hips, haws, the fruit of the whitethorn, and the wild rose, and various kinds of worms, snails, and insects. They are fond of black-beetles, cock-roaches, \&c., which, being caught in our houses, may be used to bait the traps, after being scalded in boiling water to kill them.

Thrushes, Redwings, and Blackbirds are attracted by the same bait as Fieldfares. Starlings are fond of the same bait as the previous birds, but exhibit a strong liking for eggs; they are also remarkably fond of
cherries, and will eat various kinds of grain. Larks generally (there are several kinds of them) are attracted by the seed grasses, "and by small insects. There is a system of "twirling" for larks, which, though it does not strictly pertain to trapping, we shall explain hereafter.
453. The down-fall is an excellent method of capturing birds required for the cage, as it does them no injury. It may, moreover, be used at any time of the year, though with less effect than in the winter, as far as concerus the number of birds captured. But any one knowing the harbour of a thrush or a blackbird, which has been heard to give forth superior notes, may be sure of capturing it with the aid of the down-fall, and the exercise of a little patience.
454. Birds of various kinds are also captured by horse-hair loops (Fig. 5). The best method is to tie a large number of loops upon a long string, the longer the better, and to lay this string in a series of rings winding outward from the centre, so that the ground will be completely covered with them. The trap, with the loops properly opened, should be laid on a spot resorted to by birds. When a bird gets its feet into a loop, it is almost certain to draw the loop tightly around its legs, and thus be caught.
455. Another method of taking birds is by what is called "bat-fowling," and also by "bush-beating." (Fig. 4). A large net, with a fine mesh, is mounted upon two long poles, which are carried either by one or two persons. This system of trapping is pursued in the night.time, some two or three hours after the birds have gone to roost. A party walk before the net beating the bushes, the ivy, the thatches of barns, \&c., \&c. Some walk behind the net carrying a dim light, in a bull's-eye lantern (a glass lantern diffuses the light too much). The birds, being disturbed by the beating of the bushes, fly out, and naturally take towards the light; in doing this, they fly against the net, which those who are carrying it quickly double over, and the bird is captured. Great numbers of birds may be taken in this way in a very short time.
456. Woodcocks, Partridges, and all other land birds are said to be easily taken by what is called "Low-belling," but which we have never seen tried. In this system
a strong light is employed, and two parties carry nets, one on either side of the person who bears the light. The light-bearer rings a large bell, and keeps on ringing it with a regular and unceasing jingle. The alarm of the birds, by the light and the bell, is said to be so great, that while some fly against the nets, others drop upon their backs on the ground, and will not move. But the moment the bell stops ringing, they will spring up and fly away.


Fig. 7.
STEEL TRAP USED FOR FOXES, DOGS, CATS, HARES, RABBITS, STOATS, HAWKS, CROWS,
JAYS, \&c., \&c. 457. Foxes.-These animals are, undoubtedly, the greatest pests to the British farmer, because the depredations they commit are unattended by any collateral advantage. The farmer whose ground is stocked by hares, rabbits, and birds, has the opportunity of letting the shooting thereof, thereby obtaining some compensation; but with foxes he has no such an advantage. Foxes are taken in steel traps. (Fig. 7.) These traps are made of various sizes, and degrees of strength, and that used for the "dox is the trap which is usually called a "dog-trap." The fox is an exceedingly wary animal, and great ingenuity is required to trap him. The plan which we are about to give has been long practised with great success by our informant, who has tried all other methods, and found this one to be unquestionably the best. Procure from a butcher the small entrails of a sheep, or of a pig, and bury them under ground for a fortnight, until they become putrid. Then dig them up, and cut off a few short pieces, but reserve one long piece. Dig a pit in the earth at the spot where you expect to entrap the fox, and at the bottom of this pit drive down a piece of strong stick, and around this stick wind the long piece of entrails, covering it up with earth, and leaving only one end of the entrail showing out of the ground. The best place for this system of trapping is in a fallow field. Around this pile with the entrails wrapped
on it, set three steel traps, and bury them in the ground, so that the handle or spring of each trap touches near to the pile driven in the ground. Let them be placed at equal distances from each other, around this pile. Each trap must be strapped down in a manner that is certain to hold the fox when he is caught. The traps, of course, are to be set, but without any bait upon them. The bait being that which is placed in the centre of the threc. Take the bits of entrails that have been cut off, and stick them into the ground, leaving one end of each slightly showing. These will allure the fox to the centre piece, and give him confidence. When the traps are all set and covered, take a bough or a broom, and deface all the tracks of feet, \&cc., over the traps, and for a space of ten feet all round. This bait will attract the fox from a long distance, and the plan never fails to catch him. The following artificial baits are sometimes used. 1. Sheep's liver fried in the tincture of assafœetida. 2. Oil of amber, oil of anniseed, and oil of rhodium. 3. Oil of ammonia, oil of cassowary, oil of rhodium, and oil of anniseed in various proportions. Our informant has tried all these, but none of them are to be compared with the plan we have given. By that method, he has caught a large number of foxes.
458. Craw Fish.-In the summer time these small shell-fish, which by many are highly esteemed for the table, and which furnish an elegant garnish placed around dishes of turbot, salmon, or cod, may be caught in large numbers in brooks and canals. A small hand-net (Fig. 7) mounted upon a hoop, and tied to a short stick, is all that is required for taking them. Into the middle of the net should be tied a piece of putrid sheep's liver, or other meat in a putrid state. Fresh meat will do, but it does not attract them so well. Drop the net into the water, let it sink to the bottom and rest there a few minutes, then draw it up rather quickly.
459. Field and Garden Mice.-These little animals commit serious depredations by turning up seed, destroying young trees, and barking various shrubs and plants. They have been known to eat through the roots of five-year old oaks and chesnuts, and to bark hollies which were five or six feet high. In the Forest of Dean, in three
months, 28,071 mice were captured in 1,693 acres of land. The above is a simple and effective trap for them. It consists of a common brick, with two bits of wood stuck into the ground. A bit of sewing thread is tied to each stick, and a loop is formed in the thread in the centre, into which a bean is put. To form this loop it is only necessary to take the two ends of the string and cross them, in the manner you would do if you were about to tie a common knot, then draw the ends, and the loop so formed will be-


Fig. 8.
TRAP FOR FIELD AND GARDEN MICE.
come smaller ; insert the bean, and draw the thread tight, until it sinks a little into the bean, which may be aided by making a slight indentation with your thumb-nail. Let the bean come half way between the two sticks, and let the brick rest upon the string, which should be tied tightly. When the mouse nibbles at the bean it will gnaw the thread, and down will fall the brick and kill the mouse at once.
[The subject of Domestic Rats and Mice is of so much importance that we defer it until we have obtained information upon all the best methods,]
460. Moles.-Upon the relative destructiveness or usefulness of moles there have been many discussions, and very op-


Fig. 9.

## MOLE TRAP.

posite opinions entertained. It seems to be generally agreed at last that unless their numbers were kept down, they would soon overrun the country, and do incalculable mischief. Hence, in nearly every part, we find
men who subsist by mole-catching, obtaining remuneration from farmers according to the number of moles they succeed in trapping. The traps employed are wooden traps, and as are figured in Figs. 9 and 10. Take a piece of wood about four inches long, two inches wide, and about half an inch thick. In one side of this wood insert two half circles of wood A, A, Fig. 9. Bore a hole through the centre, and one at each end. Make two loops of wire, by simply bending the wire and pushing it through the holes at each end, so as to leave the ends standing up a little way out of the holes, above the surface of the wood, where they are to be tied to a string. In the half circles of wood small grooves


Fig. 10.
MOLE TRAP SET,
have to be cut, and the wire loops are to be
opened so that the wires may lie in these grooves, and are to be plastered over with mould. When the trap has been made, proceed to set it in the follswing manner. Take a tough green stick to act as a "springle," and tie a piece of strong cord to the end of it. Pass the other end of this cord
through the hole in the middle of the trap through the hole in the midale of the trap, and tie a knot in it. This hole must be
large enough to let the knot pass through easily. A little wedge of wood (Fig. 9 B ) is then pushed up between the knot and the wood underneath, so as to keep the knot from slipping through, and two pieces of wood are to be passed across the trap, as in Fig. 10, to keep it down upon the ground. The springle, Fig. 10, being fixed in the ground, is now driven down and tied to the string to which the wires are attached, The trap is to be set in the run of the moles, which is to be ascertained by pushing a piece of stick in the ground, when the places where they have burrowed will be found by the stick sinking in easily. When the mole attempts to pass through its run, it must go through one of the half-circles, of the trap, and in doing so it moves the
wedge which holds the knot of the string tied to the springle. This being done, the springle flies up, draws the wire loops tight, and the mole and trap are together hung high in the air.
461. There are various other systems of trapping, netting, \&c., which we shall hereafter explain. In fact, we intend to give every one of the methods known, except those that require a very large outlay, such as fishing and bird-catching upon a very large scale for the markets. We shall confine ourselves principally to those inventions which are of domestic and agricultural importance. But upon the subject of trapping generally let us now say, that it becomes the duty of every person having occasion to take the life of an animal, however low it may be in the scale of existence, to cause it as little pain as possible. We are not of those who think it wrong to take life, because we know that God has given to man "dominion over all the beasts of the field," and that death is the order of creation. Since all these animals must die, as they prey one upon another-the spider upon the fly, the sparrow upon the spider, and the hawk upon the sparrow-and so on throughout a long chain of creation, it may be in the power of man to destroy them with less pain than they would have to suffer in other modes of death; and this we hold to be man's duty. But, with regard to many of these animals, if man were to neglect to keep their numbers down, he would soon be overrun, and at last his very subsistence would be endangered. It is as much the duty of man to keep down the "weeds," if they may be so called, of animal life, as the weeds of vegetable life; and he who neglects either, in case of need, is equally a sluggard.

## 462. SAUCE FOR A TURKEY.-Open a pint of oysters into a basin, wash them

 from their liquor, and put them into another basin. Pour the liquor, as soon as settled, into a saucepan, and put to it a. little white gravy, and a tea-spoonful of lemon-pickle. Thicken with flour and butter, and boil it three or four minutes. Put in a spoonful of thick cream, and then the oysters. Shake them over the fire till quite hot, but do not let them boil.463. PHENOMENA OF MARCH. -Not many years ago, one day in March, a toddling child, who had spent the advent of its merry life in the busy rush of a far-spreading manufacturing town, and whose eyes had rarely been rejoiced by the smiling winsomeness of Nature in the fields and woods, ran into the room where we were sitting in a rural cottage, and clapping her hands, exclaimed with laughter and surprise-"Oh! mamma, come and look into the garden; the leaves are dancing, and the trees are clapping their hands." Such was a child's poetical description of the effects of the wind on the gaunt boughs of the tall trees, and the broad leaves of the stately evergreens. And, verily, all Nature seemed to waken up and be gay. The wind sang varied melodies as it rushed along, like a troop of spirits singing choral hymns of triumph.
464. "With a voice of thunder it tore through the leafless oak, while ever and anon it fractured its stalwart limbs, and seemed to laugh in triumph at its victory over the king of the forest. With a solemn bass it chaunted through the sombre foliage of the cypress and the yew. With more martial music it roared, like the defiant shoutings of a giant excited with wine, through the huge arms of the budding elm. With the sound of dashing billows, it rushed through the poplar and the ash; while it went whistling piteously through the pliant willow. Like a mighty army of invaders, leaving desolation in its track, the vast mass of air, swifter than a bird, swept across the land, hurling every obstacle from its path." "The great struggle between Winter and Spring was over ; and the former, with precipitous haste, fled from the combat, roaring, and raving, and howling away; vengefully leaving what ruins he could, to indicate his power."
465. The most remarkable phenomenon of the month of March, is Wind. Its boisterousness is proverbial :-" March comes in like a lion, and goes out like a lamb." The effects of the wind, too, have been noticed in the adages, " A peck of March dust is worth a king's ransom ;" and, "The rooks have picked up all the dirt." The water in the earth, after having split up the clods of the mould under the influence of frost in

January, was softened by the thaws of Feb. ruary, and sinking down into the crevices of the ground, has carried along with it the vegetable and animal matters which it had held in solution, and which are intended for the nourishment of the roots of plants. But the ground is yet too sloppy to receive the seed; the surface of the earth must be dried; the water must be evaporated from between the particles of soil; this it is the office of March winds to effect.
466. Wind is air in motion. The question then arises-What are the causes which are likely to produce such constant movement in a gaseous body like the atmosphere? It has already been stated, that it is a general law, that all bodies expand when heated, and contract when heat is withdrawn; and it follows that any cold substance (water excepted) containing, in an equal space, more particles, or atoms, than a warm body (in which the atoms are forced apart by the heat), will be attracted more forcibly to the earth, or, in other words, will be heavier. On the other hand, when any substance is rendered hotter than the medium around, it is attracted less forcibly to the earth-or, becomes lighter. If a paper bag be constructed in such a manner that the air contained within it can be made warmer than the atmospheresurrounding the apparatus, it will be pushed upwards by the colder (and therefore heavier) air, which tends, as it were, to squeeze itself underneath the paper bag, or rarefied air-balloon. When a piece of cork is held under water, between the fingers, at the bottom of a vessel of water, its tendency to rise is owing to no peculiar property in itself, but is due to the water, which, pressing equally in all directions, forces upwards any substance having less attractive force than itself. The same phenomenon occurs when the fire-balloon ascends from the earth to a region where the air (from diminished pressure of gravity) is nearly as rarefied as the contents of the balloon. It is manifest, then, that whenever, from any cause, a portion of our atmosphere in its ordinary condition, unconfined, becomes expanded, a cubic foot of such portion will contain fewer particles than the same measure of air not so acted upon; and being attracted to the earth in a less degree, proportionate to the lessened number of its atoms, it will
be forced upwards by the surrounding heavier air, which presses under it according to the laws of fluid equilibrium.*
467. A current flowing towards the place from which the heated air has risen, is thus produced, and a wind is said to blow towards that point. Heat being the common cause of the rarefaction of all bodies, it would be expected that great conflagrations would produce upward currents of air, and strong wind blowing towards the fire; and we learn that these phenomena were remarkable at the burning of Moscow, where the cold air from the surrounding country blew from all quarters towards the city with the violence of a hurricane. The writer observed in the early morning, after a destructive fire in Manchester, that the weathercocks on the church spires and public buildings pointed in opposite direction to the scene of the fire, showing that there had been a stream of air rushing in from all sides towards the point of conflagration. The phenomenon upon a small scale is hourly to be witnessed in our houses. A fire is lighted in the grate, warming and rarefying the surrounding air, which, having a diminished attractive force, is pushed into the chimney by the henvier cold atmosphere, which squeezes itself through the crevices around the door and the window sash. What is called "a draught" in a house, is a current of air produced by the pressure of cold atmosphere to displace that which has lost gravity by rarefaction. 468. The torrid zone-from causes already noticed-is the hottest portion of our globe, and here there must be the greatest rarefaction of atmosphere; there should, therefore, if our theory is correct, be an ascending current from this part of the earth, and winds blowing from the north and the south towards the equatorial regions. This is actually the case. The cold air from the frozen regions in continually pushing towards the tropics forms an upper current towards the poles. The former produce the trade-winds so important to mercantile navigation, the latter act only upon the most elevated vapours. If the earth did not rotate, and local causes did not interfere, there would be through-

[^2]out the northern hemisphere a steady wind from north to south; while in the southern hemisphere there would be a continuous stream of air from south to north. It is plain, however, that the air at the poles has a less rapid rotatory motion than that at the equator, and that the stream coming from the former latitudes will retain the slow movement which it there possessed. Now we know that if we are driven rapidly (in a railway train, for example) against air which is quiescent, we have a sensation identical with that produced by wind blowing against us; and so, as the earth revolves from west to east, with a rapidity far exceeding the revolutionary rapidity of the air-stream, the latter appears to have an opposite motion, and seems to blow from the north-east in the northern hemisphere, and from the south-east in the southern half of the earth. While the cold currents from the poles are thus creating the tradewinds towards the equator, the hot air which ascended from the tropics has parted with a portion of its warmth, and descends again at the poles, there producing a west wind, owing to the fact that this air possesses, in some degree, the more rapid rotatory motion of the equatorial regions with which it has been in contact. Hence, south-west winds prevail in the north temperate zone, and north-west winds in the south temperate zone. It is on this account that the voyage from New York to Liverpool does not occupy on the average more than twenty-five days, while the average length of time occupied by the voyage in the opposite direction is about thirty-five days.
469. As the trade-winds approach the equator, they begin to partake of the motion of the earth, and their apparently easterly direction becomes less and less; and in the immediate vicinity of the equatorial zone, the air-current seems to blow due north and south on either side.
470. Under the head of "The Phenomena of February," (323) the various causes affecting the climates of different places were mentioned. It needs scarcely be observed, that all the agencies which affect the temperature of a locality, will also tend to influence its air currents. The extent of water or land, mountain ranges with summits above the snow line, and all
other peculiarities of terrestrial aspect in the neighbourhood of a place, produce changes in the air-currents by which it would otherwise be supplied. Thus, in the Indian Ocean, the trade-winds, whose general direction has been described, receive a curious modification from the position of the surrounding land, and the effect of solar heat upon it. The district in which this phenomenon-which is called the Monsoon-is observed extends from the east coast of Africa, to about 135 deg. E. longitude, and from the southern parts of Asia to about 10 deg. S. latitude. From April to October, while the sun's rays are vertical on the northern side of the equator, and the surface of the continent there highly heated, a SW. wind blows from 3 deg. S. latitude, over the northern parts of the Indian Ocean, Hindostan, the ChinaIndian states, and the Indian Archipelago. Over the same districts, during the remaining part of the year, a NW. wind prevails. From the third to the tenth degree of S . latitude there is a SE. wind from April to October, and a NW. during the next halfyear. The SW. wind brings in the " rainy season" of India.
471. The trade-winds and monsoons may be considered regular winds, being subject to little variation from year to year in the recurrence of their operations. The larger the expanse of ocean over which the former blow, the more steady is the air-current ; and for this reason the trade-winds are found to be more continuous and invariable in the Pacific than in the Atlantic Ocean, and in the South than in the North Atlantic Ocean. It is singular that in the region of the constant trade-winds rain falls very seldom, though there is an abundant supply of frequent showers in the adjoining latitudes. The cause of this will be explained in connection with the phenomena characteristic of one of the later months.
472. The rapid changes and extreme variations of temperature liable to occur on extensive tract of land, render the winds more uncertain in such localities, and their phenomena less reducible to order, so that no general law can with certainty be derived from the observations which have been made. Even in equatorial latitudes, under such circumstances, there is little constancy in the direction or intensity of
the winds. In high latitudes the inequalities are still greater, and extend even to the open seas; and indeed the winds seem to obey no fixed laws beyond the latitude of 40 deg . There are, however, in all latitudes gentle winds on the borders of the ocean called land and sea breezes, which should be noticed and explained in this article upon "Wind." During the day the rays of the sun warm the surface of the land to a greater degree than that of the adjacent ocean; and the air above it, being rarefied, is displaced by the denser air rushing in from the sea; hence a current, or sea breeze, begins to set in soon after sunrise, and continues to flow towards the land till after the rays of the sun have ceased to supply caloric. In this country the sea breeze sets in about seven or eight o'clock in the morning, and continues (according to the season) till three or four o'clock in the afternoon. When the sun has sunk beneath the horizon, the earth, by radiation, rapidly parts with the heat it has absorbed, and hecomes colder than the water ; and then the air above the land having becomemore dense, and consequently heavier, pushes the sea air aside, and thus creates a land breeze blowing from the coast towards the ocean. Every person who has visited the sea-coast has had opportunities of noticing these phenomena.
473. It will hardly be appropriate here to describe the winds which are peculiarly local, such as the wind of Arabia, Egypt, Syria, \&c., known as the Simoom; the dreadful Sirocco of Sicily; the scorching Solano of Spain ; the withering Harmattan of Africa, or the freezing Bize which visits the districts at the foot of the Alps. It has been our intention only to deal with phenomena which illustrate and prove certain general laws.
474. The velocity of the wind varies from an imperceptible current to a hundred miles an hour. When its rate of movement is about five miles an hour, it is said to be a pleasant breeze; when its speed rises to thirty miles an hour, the wind is described as "high;" when it gains a force of double that rapidity, a "great storm" results; and when its velocity rises to eighty or a hundred miles an hour, the most dreadful destruction of treesand houses ensues, and a hurricane is said to occur.
475. Having described, in general terms, the causes of winds and some of the most remarkable air-currents, the reader will expect to learn somewhat of the effects of these phenomena. For what good end do winds blow? We have a firm belief that all such things must have a beneficial purpose to which they are specially adaptedwhat is the purpose of the winds? What is the especial duty of the currents from the pole to the equator? The first thing which strikes us, perhaps, is the difference in the temperature of the two latitudes just named ; and we should not erroneously conclude that one effect of these air-currents was to tend to equalise their temperature, by conveying the cooling atmosphere of the frozen regions to the tropics, and vice versa. But another and more important relation between the poles and the tropics is kept up by the agency of wind. In the districts where extreme cold prevails, a greater quantity of carbonic acid is given off by the lungs, while the vegetation being stunted has less power of decomposing the poisonous gas and climinating oxygen than in the torrid zones, "where a sky, seldom clouded, permits the glowing rays of the sun to shine npon an immeasurably luxuriant vegetation," and where oxygen is given out abundantly. Between these regions the winds effect an interchange, conveying the carbonic acid of the poles to the tropics, and the oxygen of the torrid zone to the frozen regions. Wind, moreover, is of great use in drying the earth in seed-time, \&c., by the process of evaporation ; it is also the agent which conveys the clouds from the waters over the lands ; and it exercises a constant influence in preventing the stagnation of the atmosphere, and in the dispersing of noxious eflluvia.
476. It is due to the reader to mention, that although heat is the chief cause of atmospheric disturbances, yet that the rapid condensation of vapours in the atmosphere occasionally produces sudden and powerful air-currents. Sufficient rain to form a layer of water an inch in depth has been known to fall in the equinoctial regions over a large extent of country; the liquid was previously in a state of vapour, occupying much greater space, and upon its condensation a vacuum would have been
produced if the air from all sides had not pressed in to fill the empty space. Sup. pose the superficial extent over which rain had thus fallen to be 100 square leagues -if the vapour necessary to produce this quantity of water existed in the atmosphere at a temperature of 50 deg. Fahr., it would occupy a space one hundred thousand times greater than in the liquid state. The immense void resulting from such a condensation may be conceived, and an idea formed of the mode in which violent atmospheric concussions are produced. The whirlwinds, which produce such disastrou's effects in the tropics, are believed to be caused by these sudden condensations of vapour.
477. THE END OF PRUDENCE. The great end of prudence is to give cheerfulness to those hours which splendour cannot gild, and acclamation cannot exbilarate -these soft intervals of unbended amusement, in which a man shrinks to his natural dimensions, and throws aside the ornaments or disguises which he feels in privacy to be useless incumbrances, and to lose all effect when they become familiar. To be happy at home is the ultimate result of all am. bition-the end to which every enterprise and labour tends, and of which every desire prompts the prosecution. It is, indeed, at home that every man must be known by those who would make a just estimate of his virtue or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honour and fictitious benerolence.
478. REMEDY FOR WEAK AND SORE EYES.-The following is a simple and cheap receipt for curing weak and sore eyes. I have never known it to fail; but it has always effected a cure, and that, too, very quickly. If there is anything the matter with the eyes, it will cause them to smart, and the worse the eyes are, the more will they smart. You may get a sufficient quantity to fill a fair medicine-bottle, mixed for you at the chemist for sixpence. The receipt is as follows :-White vitriol, 30 grains ; Nitre, 20 grains; Elder-flowerwater, 8 ounces. To be mixed together. I have given a great deal of the above lotion away to the poor of this parish, and it has done all good that have tried it.-
F
H .
279. A LESSON IN ITSELF SUBLIME.
A lesson in itself sublime, A lesson worth enshriming, Is this-"I take no note of time, Save when the sun is shining."
These motto-words a dial bore, And wisdom never preaches
To human hearts a better lore Than this short sentence teaches; As life is sometimes bright and fair, And sometimes dark and lonely, Let us forget its pain and care, And note its bright hours only !
There is no grove ou earth's broad chart That has no bird to cheer it;
So Hope sings on, in every heart, Although we may not hear it : And if, to-day, the heayy wing Of sorrow is oppressing,
Perchance to-morrow's sun will bring The weary heart a blessing: For life is sometimes bright and fair, And sometimes dark and lonely, Let us forget its toil and care, And note its bright hours only !
The darkest shadows of the night Are just before the morning;
Then let us wait the coming light, All boding phantoms scorning:
And while, we're passing on the tide Of Time's fast-ebbing river,
Let's pluck the blossoms by its side, And bless the gracious giver:

As life is sometimes bright and fair, And sometimes dark and lonely, We should forget its pain and care, and note its bright hours only!
280. SMALL TALK.-Nobody abuses small talk unless he be a stranger to its convenience. Small talk is the small change of life : there is no getting on without it, There are times when "'tis folly to be wise," when a little nonsense is very palatable, and when gravity and sedateness ought to be kicked down stairs. A philosopher cuts a poor figure in a ball-room unless he leaves his wisdom at home. Metaphysics is as intrusive in the midst of agreeable prattle, as a death's head on a festal board. We have met with men who were too lofty for small talk; who would never swear at their servaints or-the weather. They would never condescend to play with a ribbon, or flirt a fan. They were above such trifling; in other words, they were above making themselves agreeable, above pleasing, and above being pleased. They were all wisdom, all gravity, and all dignity, and all tediousness, which they bestowed upon company with more than Dogberry's generosity.
281. THE DOCTOR'S STORY.

On the second of April, 1838, about eleven o'clock at night, I was comfortably seated in my favourite arm-chair, reposing my thoughts, which had been painfully exerted during a hard day's labour in the arduous duties of my profession, by retracing many of the scenes in which the last twenty-five years of my life had been passed.

On the evening when the firs ${ }^{2}$ scene of the little reminiscence I am about to relate occurred, the weather was cold for the season ; a quantity of dingy London snow lay half-melted on the ground, and a heavy sleet was falling fast-just the kind of night to make one appreciate fireside comforts; and I was congratulating myself on the prospect of spending the night at home, not thinking it likely any of my patients would summon me, when an impatient double-knock at the street door put all my cozy anticipations to flight. My good-humour was, however, speedily restored, by seeing my ever-welcome friend, Colonel Delaware, enter my library. He was an especial favourite of mine, and the world in general, and most deservedly; a brave and able officer, often desperately wounded; he united to a feeling and simple heart, a strong, clear understanding, a handsome person, and a manly, quiet manner; and, paramount above all those sterling qualities, integrity and honour, which add the brightest lustre even to a diadem, and can make the lowest serf a gentleman of Nature's own creating. He was a man of few words, and generally undemonstrative; but, having known him intimately for many years, I instantly saw that a heavy cloud hung upon him, and, as I invited him to take an arm-chair opposite to my own, I rather anxiously inquired if anything ailed little Cecil, alluding to his only child, a lovely boy of two years old.
"No, he is well; it is of his mother I am come to speak."
" Mrs. Delaware !" I exclaimed. "Thanks be, the evil can hardly be grave enougb to warrant the despondency I read in your countenance, for I saw her in her carriage but two days since; I was not very close to her, certainly, but near enough to see she is as pretty as ever."
> " Nevertheless, my friend, she is dying," rejoined Colonel Delaware.
> " Dying !-impossible!-and we sit talking here ; let us hasten to her instantly, and you can explain the circumstances while we are on the road," I hurriedly uttered, while preparing to invest myself with the overcoat that was the companion of my night rambles.

To my surprise, my visitor stirred not, but mournfully shaking his head, said, "Not so, my dear doctor, you cannot see her tonight; whether we can manage for you ever to do so I know not ; for now she resolutely refuses to have advice, asserting that her malady is beyond the reach of human skill."
" Pooh, nonsense! and you suffer her to injure herself, physically and morally, by giving way to such caprices," said I, very crossly, throwing down the coat, and planting myself in my own chair-for I can be a little testy when those in whom I am interested will not do as I think they ought. Softening, however, as I looked more closely into my friend's face, I added, "At least, tell me all you can. Where is the seat of her complaint? how long has it been apparent? and what are its symptoms? ?"
"I can only tell you," he repied, "that about a month since, she began to waste away, losing both appetite and strength, and also to a great degree the power of sleeping; she turns with disgust from all sustenance, and it is with the greatest difficulty she can be persuaded to swallow a few spoonfuls of any food in the course of the day. That pure colour you used to admire, now only appears in sudden flushes; she will not admit that she is ill, yet she has been frequently observed to shed tears over her boy, pressing him to her heart with almost convulsive energy. Since I was elected a member of the House of Commons, I have had a separate sleeping apartment, fearing that the late hours I am obliged to keep might disturb Clara, whose constitution, you have often told me, though not sickly, is very delicate. In the day-time, she will scarcely suffer me to remain five minutes away from her; so that I could not have come to you at any other time but this, when she believes me engaged at the House. Above all things, she implores me not to acquaint you with her state."
"She is afraid I shall cure her, I sup.
pose," I said, this time to myself, feeling a little nettled at this want of confidence to. wards an old friend of her father's, who had known her from her birth. "All this is exceedingly unsatisfactory, and I can come to no conclusion from it," I observed, after a minute's reflection. "The fact is, I must see her myself, and I will be at your house to-morrow about eleven o'clock. Don't be alarmed," I continued, anticipating the words he was about to utter, "I will make my visit appear a purely accidental one."
He then rose to depart, and as I conducted him to the door, $I$ endeavoured to cheer him by expressing the conviction I really felt, that he had, through over-solicitude, magnified the evil; I then returned to my fireside to meditate on what had passed.

As I writs this principally for the guidance of my young successors in the healing art, should they ever encounter a similar case, I must describe Clara Delaware. She was the only child of a young Spanish lady of high rank, who was found near the field of Albuera by Colonel, then Captain Mortimer, entirely unprotected, having lost her father and two brothers in the engagement; she was only ten years of age, and her preserver sent her over to England, were she remained for six years, under the care of his aunt. At the expiration of that time, Mortimer married her. After they had been united about a year, she died in giving birth to Clara. For eighteen years the sorrowing husband devoted himself to the care of the legacy his wife had left him; he then esteemed himself fortunate in being able to bestow her hand on Colonel Delaware, to whom her heart was already given. His task being thus accomplished, two months after his daughter's marriage, his spirit fled to rejoin her whom he had loved so well. This was the first sorrow Clara had ever known, and so deeply did it affect her, that for months I despaired of saving her, and only the joy of becoming a parent herself effectually roused her irom the deep dejection her father's loss had plunged her into. She inherited her mother's almost Eastern style of beauty and acutely nervous temperament, her grace and softness, combined with a share of her father's English principles, and strong, faithful heart. Al-
together, however, she was more like a daughter of the South than a native-born Englishwoman. I am one of those who believe that a proportion of the maladies that affect humanity may be traced to the mental causes; and to watch for the signs of these, and remove them if possible, is part of my system : and as I have been rather more than usually fortunate, I still think my views are correct. In this case, I could not divest myself of the impression that the fair lady's disease owed a little to fancy; and, promising myself to investigate it very carefully on the morrow, I retired to rest.

Eleven o'clock on the following day found me at Colonel Delaware's door ; and taking the privilege of an old friend and doctor, I proceeded, unannounced, to her boudoir. The first glance showed me there was real cause for anxiety ; indeed, I could scarcely believe the attenuated form before me was that of one who, but a few short weeks before, had been so blooming a young woman. She was lying on a sofa; her magnificent Spanish eyes were slightly sunken, and surrounded by a dark circle, sure indication of extreme languor; she had lost that rich, deep colour, so beautiful when it mantles on the cheek of a dark-eyed beauty; her cheek was now perfectly pale, of a wan ivory paleness; her hands, through the fine skin of which the blue veins were fearfully apparent, hung listlessly, and seemed almost transparent; the roundness and embonpoint that had made her figure one of the most perfect that can be imagined, had quite disappeared; yet she was, as usual, elegantly, almost artistically dressed, and every possible effort had been made to conceal the ravages illness made upon her beauty. Even her beautiful long curls were so arranged as to hide as much as possible the extreme emaciation of her throat and neck. I recognised in all this a moral determination to resist increasing illness, which I had often found to be a bad sign; indeed, altogether, I was painfully surprised at her appearance.

As I am now arrived at that age which (too matter-of-fact to appreciate a graceful and flowery style) thinks the easiest and simplest manner the best, I will relate our conversation as they do the dialogues in
children's school-books, thereby avoiding the insufferable monotony of "I observed," "she replied," "I rejoined," \&c. \&c. Assuming a cheerfulness I was far from feeling, I seated myself in a chair by her sofa, and silently taking possession of her wrist, appeared to consult the beatings of her pulse. Raising her eyelids, the lashes of which were so long and silky they were a marvel, in a composed voice she deliberately broke the silence that had reigned until then.
Mrs. Delaware: "What brings you here, doctor? Do you come at my husband's request?"

Doctor: "That is a very unkind question. I have not seen you for two months. I do not think I have been so long without seeing you since you came into this world; now you ask me why I come. Do not be a larmed, I do not intend to score this visit against you, though "I really think you greatly need my care."

Mrs. Delaware: "Why so? you see I am quite well."

Doctor: "Yes, I see that you have got on a very beautiful dress. Nothing can be more coquettish than that little Frenchified cap. All that is very false, and you are very false too, and are trying now to deceive me."

Mrs. Delaware: "Indeed, I am suffering no pain anywhere."

Doctor: "Would you really wish to persuade me that you are in good health ? Why, if I could be mistaken in the expression of your countenance, the sound of your voice, your painful respiration, uneven pulse, the pallor of your face, and your emaciation, speak to me in language not to be refuted. Now, I will venture to assert, that for a month you have scarcely ate or slept."

Mrs. Delaware: "Oh, no, doctor, three weeks at the outside."

Doctor: "There, now, you have fairly avowed and confessed yourseif to be ill."

Mrs. Delaware: "But it is possible to lose both sleep and appetite without being ill; one can suffer, too, generally without having any decided complaint."

Doctor: "Do you know that you distress me extremely? but I still feel confident that I shall be able to restore you to health and happiness. I have not so blind
a confidence in the drugs and remedies of my profession, but that I am truly rejoiced to perceive I shall have to treat you rather for a mental care than for corporeal indisposition. Forget that I am a doctor ; look upon me as your old friend, your father's old friend, and tell me what is weighing so heavily on your mind? Perhaps I may ," be able to lighten the burthen for you."

Mrs. Delaware: "You are a kind friend, but you cannot restore me to sleep or appetite; I must bear my fate."

Doctor: "Your fate, madame! (nothing puts me out like a soupcon of romance) you ought to be continually grateful for so happy a fate. The adored wife of one of the most distinguished and best men of the diy, possessing a large fortune, mother of the most promising boy in the three kingdoms."
"Mrs. Delaware (interrupting me)"And is it not a hard fate to break that noble husband's heart, to abandon my darling Cecil on the threshold of life?-it is, indeed, too cruel!!"
At these words, I began to feel my fair patient had listened too long to the honied words of some leceiver, who was striving to induce her to abandon her happy home, and all its virtuous joys, to embrace a life of misery and shame; but there was so much real anguish in her looks and voice at the rea or separation, tnat, tnougn most sincerely grieved, I was not much alarmed.

Doctor (gravely but kindly): "God will exact no such sacrifice from you. He demands no severing of such sacred ties; in the twenty-five years during which I have been engaged in soothing and healing my fellow-creatures, I have gained much experience, and with it some power to advise; nor have I been so unobservant of the ways of the fashionable world as not to have marked the perils to which youth and beauty are exposed, even when guarded by a husband's watchful care; but believe

## Mrs. Delaware (eagerly interrupting me)

 -"Stop, doctor; I blush for the mistake I have thoughtlessly led you into. To clear myself of the suspicion I have given rise to, I see I must confile to you the cause of my illness and depression; but before I do so, I must receive your solemnpromise not to communicate what I may tell you to Colonel Delaware until after my death."

I readily gave the required promise, which, indeed, cost me nothing ; for I have invariably found, in all anxious and trying cases, husbands and mothers prove very troublesome confidants. Mrs. Delaware then related the following circumstances :-

A month previously, she awoke rather earlier than usual; and not wishing to rise immediately, passed an hour in reading "Letters on Animal Magnetism." She then laid the book aside, and fell asleep; she was roused from her slumbers by her bed-room door opening, the clock on the mantle-piece striking ten at the same moment, and two men in black entering. Astonishment kept her silent as they advanced to the table in the centre of the room. One, an old man, kept his hat on, and leaning one hand (in which he held a rule and pencil) on the table, turned round to address his companion, who, hat in hand, appeared to be deferentially awaiting his orders, which consisted in minute directions respecting the making of a coffin -the length, breadth, thickness, lining, \&c., being all accurately described. When he ceased speaking, his subordinate inquired what the inscription was to be; the old man replied, speaking slowly and innpressive,y - "Clara Delaware, aged twentytwo, deceased at midnight on the 10 th of April, 1838." At tinese words, both, for the first time, looked earnestly at Clara, and slowly left the room. Shaking off in some degree the spell that had hitherto bound her, she rang her bell; and her maid immediately answering the summons, she found, to add to her consternation, that this maid had been sitting for the last three hours in the room through which these men must have passed. Finding, on further investigation, that no one in the house had seen her lugubrious visitors, she gave herself up to supernatural terrors; and, conceiving that she had received a warning that she was to die at midnight on the 10th of April, she had lost appetite and sleep, and was, in fact, fast sinking under the impres. sion that the hour indicated was fated to be
her last.

At first I was quite rejoiced to find it was
not worse ; and, rubbing my hands with even more apparent glee than I really felt, I asked her how she could possibly have allowed an uneasy dream, engendered, no doubt, by the mystic nature of the book she had been reading, to disturb her so much, adding a few jesting observations; but the mournful expression of her countenance checked me, and, at last, taking it up seriously, I endeavoured, by every argument that suggested itself to me, calling in the aid of religion, philosophy, and common sense, to demolish the monster her imagination had raised. In vain; I could not flatter myself that even for a moment her belief wavered. When I arose to depart, which I did, promising myself to return again and again, when I had considered the case a little, she gave me a letter sealed with black, to deliver to her husband after her death. Reflection added considerably to the uneasiness I already felt. I saw in her altered form what dire havoc imagination had already made; and when the extreme nervous susceptibility of her system was considered, there was but too much reason to apprehend the very worst might happen, unless her mind could be relieved from its present state of painful tension by some most satisfactory and conclusive means. Telling her husband his wife required amusement and change, and requesting him to procure her daily some friendly society, so that she should be as little alone as possible, I paid her myself long and frequent visits. All my spare moments I employed in searching books for anecdotes and arguments, which I trusted might prove more convincing than my own. Often in the night I congratulated myself on having found some new light wherein to place it, that must at once satisfy her. Still in vain; all my efforts failed in changing into hesitation the firm, fixed belief, so clearly to be read in her calm, mournfnl eyes.

My prescriptions failed equally in improving her bodily health. I saw her waste almost as I watched her ; I felt her pulse grow slower and weaker under my fingers, and the fatal night was fearfully near at hand. My anxiety rose almost to agony -indeed, I am persuaded that a fortnight of such suffering would have finished the doctor as well as the patient. All imaginable expedients I thought of and rejected
-among others, that of bribing two men to come forward and confess they had entered ber apartment, and acted the warning scene for a lark or a wager ; but, as she told me their features were indelibly impressed upon her mind, I abandoned that. The scheme on which I paused the longest, was that of giving her, on the fatal night, a dose of laudanum, so that she should sleep over the dreaded hour; but her rapidly-increasing weakness obliged me to relinquish that, as too dangerous; and the nearer the day approached, the more obvious it became that her constitution would not stand opium. I asked the opinion of several of the most eminent medical men of the day; but, (as I could not introduce any of them to her without at once proving to her how ill I thought her, and which would have had the most disastrous effect), without seeing her, and understanding her temperament, they could not conceive the danger, and thought she would get over it with a fright. Thrown thus on my resources, with the life of this young creature, a wife and mother, depending on the wisdom of my treatment, I neglected most of my other patients to devote myself to her, and spend all my evenings with her and her husband. Her manners were always most winning, became daily more so ; she spoke to us all with such an affectionate expression. It appeared almost as though she sought to secure our love for her memory, when she herself should be summoned away.

On the evening of the 8th of April, the evening but one before the dread night, she was suddenly seized with a violent fit of hysterics, succeeded by fainting fits. Colonel Delaware, who for some time past had, with the usual blindness of affection, imagined that his wife was recovering, now for the first time, as he knelt by the side of the bed to which he had carried her, perceived partly the imminence of her danger. I cheered him, poor fellow, as much as possible, and seeing Mrs. Delaware comparatively restored, I returned home; and after a night of most anxious consideration as to the means of getting my patient over the dreaded midnight hour, the remembrance of a play I had seen when a boy flashed upon my mind, and I instantly determined to adopt it. My plan, though it presented some difficulties, was soon arranged in my
mind, and I began, for the first time for several days to entertain hope. The next evening I confided to the colonel that his wife had a fixed idea that on the following night she would have an attack similar to the one she had just recovered from, which would be the crisis of her malady; that I myself thought it not improbable the excited state of her nerves might actually produce what she dreaded, and I therefore wished to save her constitution that shock. He pledged himself to follow my directions most faithfully, and promised the most inviolable secresy. The servants were made acquainted with just sufficient to ensure their co-operation; and as they were sincerely attached to their young mistress, full reliance could be placed on their faithful execution of the orders entrusted to them.

The morning of the eventful 10th was, fortunately, as brilliant a day as can well be conceived; even smoky London became almost bright, and all things seemed to exult in the coming spring. I visited my patient in the morning, and found her, as I expected, weaker and lower than the preceding evening. I peremptorily ordered carriage exercise ; and, as she always yielded to my suggestions, it was settled that at three o'clock her husband should accompany her in a short country drive. While she was attiring for this purpose, her maid was awkward enough to break the chain to which her mistress' watch was attached (being provided by me with the means to do it), and the watch was obliged to be left at home. On re-entering her apartment, poor Clara eagerly resumed her watch, the damage having been repaired during her absence, and anxiously compared it with the clock on the chimney-piece-the hour both indicated was five. She also found on her table two notes from her two most inti. mate friends, inviting themselves to dine with her that day at six-alias seven-in consequence of my having paid them a visit that morning, when, confiding the consequences to them, I taught them their parts. One was a Mrs. Wakefield, who had been the instructress of Mrs. Delaware's youth, and was still regarded by her with sincere affection ; she was a calm, sensible, self-possessed person, of encouraging and maternal manners. The other was an old maid, a Miss Holman, the most agreeable
plain woman I ever knew, full of drollery and anecdote, but hiding a strong mind and excellent heart under a light, careless, gay address. She also had known our invalid from her birth, and a strong friendship existed between them.

I had, of course, invited myself to this momentous dinner of my own arranging; and, moreover, had requested Colonel Delaware to bring home to dinner, apparently by accident, the Rev. Wilfred Alderson, an old friend of the family, and a bright example of all a Christian pastor ought to be. There was an expression in his benign and reverend countenance of such complete internal conviction of the divine nature of his profession, and the truths he was called upon to inculate, that inspired at once confidence and affection; I had not forgotten to pay him a visit in my morning rounds, and I could not but hope the presence of such a man, the type of all that is most cheering and consoling in our holy religion, would not be without its effect on our poor sinking hostess. When we were all assembled, the greetings over, we descended to the dining-room, which Mrs. Delaware reached with less difficulty than I had apprehended. When I saw her in the full blaze of light, all my terrors, in some degree smothered by the active exertions I had been making all the day, returned full upon me. It was not only that she was wasted and pale, but her eyes, drawn back into her head, had a most painful expression ; her lips were of a purple tinge, and nervous twitches passed frequently over her face. I glanced round, to see if her friends were all conducting themselves according to orders, and, observing a slight contraction of the features of the gay old maid, I frowned at her; and she immediately taking the hint, with great selfcommand, rattled off, story after story, and bon mot after bon mot, until even a sort of half smile stole over poor Clara's face. A most painful smile it was, and nearly unmanned her husband, ignorant as he was of the worst; but a severe look brought him into obedience again.

I, shall never forget that dinner! All ate and talked but the hostess; but I truly believe not one of the party knew what they ate, and but little of what they said. We all felt it was a thing to be got over
and many were the anxious glances turned towards the object of all our solicitude, who, unconscious that so many loving eyes were fearfully, though covertly watching, kept continually glancing at the clock, and often compared it with the watch. I noticed that each time the hour struck, her agitation increased, and this became wurse as the evening advanced. A fine, self-playing organ in the room, which everybody requested to hear again, aided to protract the dinner as long as possible ; so that when we arose, it was half-past eight-really halfpast nine. Mr. Alderson had previously requested that we might accompany the ladies after dinner, and not remain at table after their departure ; and now Miss Holman playfuily entreated that, instead of repairing to that " great formal drawing-room," we might be permitted, as a great indulgence, to spend the evening in Mrs. Delaware's pretty boudoir; and, as we all joined in the request, it was agreed to, and we accordingly repaired there. I had been anxious to compass this little arrangement, because, should it be necessary to convey my patient to her bed, as her boudoir opened out of her bed-room, it was far more convenient.

Scarcely were we established, however, when a little circumstance occurred which I felt most indignant with myself for not having foreseen, though I scarcely knew how I could have prevented it. Little Cecil was brought in to receive his parent's last kiss for the day. Those who can form any conception what a mother's feelings would be on beholding for the last time an only and idolized child, will easily fancy with what convulsive despair poor Clara strained her boy to her heart ; and those who cannot, will not be rendered more feeling by any description I could give. I may say we all endured martyrdom while this lasted : no one could speak, and all bowed their heads to conceal the emotion their atmost efforts could not entirely repress. At last I motioned the maid to take the child away; and making a diversion by alling on Colonel Delaware to assist me n bringing forward the sofa, I insisted on ny patient placing herself thereon, and I eated myself beside her; and, consulting er pulse from time to time, tried to draw er into conversation. Half-past nine, and
actually half-past ten, was now reached; another dreadful hour and a-half to drag over. Tea was brought, and the conversation became more easy ; but my anxiety was becoming almost intolerable. Clara was fast becoming worse-every stroke of the clock seemed to bear off some of her little remaining vitality; her hand, sometimes burning, had become cold as death. Ten, half-past ten passed over, and now the dreadful moment for us-not her-was approached. Clenching my hand so that the nails entered the flesh, and biting my lips till the blood ran down, I awaited the first stroke of the real midnight hour. It passed: how great was the relief, He who read the hearts of all present alone can tell. Every countenance began to brighten, cvery voice began to loose its constrained tone, as the passing minutes made assurance doubly sure. Still I trembled for Clara.

I had intended to await the half-hour before I announced to her that her supposed prophecy was false; but when it reached a quarter past, she became so much worse -short, sharp spasms contracting her features, and her whole face assuming a violet hue-that, apprehending she would fall into convulsions, I dared no longer delay the announcement; so rising from my place, I advanced to the table, and, striking it loud enough to attract even Clara's attention, I exclaimed-
"Colonel, go and embrace your wifeshe is saved. With one word I can effect her instant cure."

All rose at my word, and Clara fixed upon me a gaze of mingled wonder and incredulity.
"Yes," I continued, " I hereby proclaim the vision which announced to Mrs. Delaware that she was to die this night at twelve o'clock to be a false one ; because at this moment she is living before us, and it is twenty minutes past twelvc."
"You mistake, doctor: it is only eleven, not twelve," said she, as despair seemed again settling on her countenance.
" It is past twelve, I assure you. Pardon us, my dear Mrs. Delaware ; but finding all reasoning powerless, your friends and I have put back one hour every watch and clock on which your eyes have rested."

I could now perceive a faint gleam of hope in her eyes as she breathlessly saill,
"But the church clock-I counted eleven myself not half-an-hour since."
"Ah," I replied, "that will be a bad business for the colonel, for I bribed the parish authorities to put back that clock too, and not less than a hundred pounds presented to the parish will be deemed sufficient recompense by the mighty dignitaries of the parish. In half-an-hour we shall have the pleasure of hearing it chime one. Poor midnight has been tabooed from the quarter to-night."

I then produced a second watch, with which I had provided myself, indicating the real time, and also a note from one of the churchwardens to the colonel, expressing the satisfaction felt by kimself and colleagues at being able to serve so distinguished a parishioner. Her friends and husband crowded round her, each multiplying proofs of the truth. Hiding her face in her hands, she hastily rose and left the apartment. We all felt she had gone to her child; and, at my request, no one followed her. She returned in a minute, with a face radiant with smiles and tears, from which all bad symptoms were fast disappearing; and, affectionately addressing us individually, in a few, sweet, low words, expressed her gratitude; and, I am proud to say, she had the most and the sweetest words for her old friend the doctor. Her husband almost paralysed by the sudden knowledge he had obtained of the imagined risk, seemed, soldier as he was, quite overcome ; and well it was for us all, when the venerable pastor, calling us all around, addressed a short prayer to Him whose merciful aid had been so frequently, though silently, implored during the last few hours.

I then resumed my medical capacity; and as we had so indifferently dined I prescribed a supper, which was immediately assented to ; but Mrs. Delaware feared we might not fare sowell asshe could wish, theservants not having been warned. Begging her to be perfectly easy on that head, as I had taken the liberty to order the supper two days previously, the bell was rang for it; and a more joyous party never, I am sure, sat down to enjoy themselves. Clara ate the wing of a chicken, and her bloom appeared rapidly returning. We kept it up right merrily until past three; and, remaining behind the last, I stopped the thanks
she longed to give me, by pointing out the $\sin$ of indulging the imagination too much, showing her she had allowed a foolish dream to bring her within an inch of the grave-and, bidding her good night, I joyfully departed.

In a few days she was perfectly well, and has never had a similar visionary attack. I have related this short incident to show my young successors that complaints arising from mental causes are best combated by the mind itself-a powerful organ of cure, but little thought of in these days of whimsical remedies and wonderful discoveries.

## 282. DIRECTIONS HOW TO

 CHOOSE LAMB.-If the vein in the neck of the fore quarter looks yellow or green, it is very stale, if blue, it is fresh. The head is good, if the eyes are plump and bright, if sunk and wrinkled it is a sure sign of staleness. In the hind quarter, if there is a faint, disagreeable smell near the kidney, or if the knuckle is very limp, it is not good.283. THE JOINTS OF LAMB.-The fore quarter consists of the shoulder, neck, and breast. The neck and breast are called a target; the hind quarter consists of the leg and loin, the head and pluck, generally go together. The pluck contains the liver, lights, heart, nut, and melt. The fry consists of the sweetbreads and skirts, with some of the liver.
284. Joints of lamb should be boiled a quarter of an hour to the pound; a leg of five pounds will take about an hour to roast, other joints in the same proportion.
285. The hind quarter of lamb may be roasted plain (see Hauncb of Mutton, 400) or the Northamptonshire fashion. Boil the leg three quarters of an hour or an hour. Cut the loin into chops, egg and bread crumb them, and fry them in boiling fat (see 198) until they are of a nice brown; then fry some parsley in the same way that you fry the chops, and lay the chops round the leg in the dish with spinach nicely boiled and squeezed perfectly dry, in between the leg and the chops, and garnish with the fried parsley. This is an extremely pretty dish. 286. TO FORCE A LEG OF LAMB, Carefully take out all the meat with a sharp knife, and leave the skin whole, and the fat on it; make the lean you cut out into a
forcemeat thus:-To two pounds of meat add two pounds of beef suet cut fine, and beat it in a marble mortar till it is very fine; take away all the skin off the meat and suet, and then mix it with four spoonfuls of grated bread, eight or ten cloves, five or six large blades of mace dried and beaten fine, half a large nutmeg grated, a little pepper and salt, a little lemon peel cut fine, a very little thyme, some parsley, and four eggs; mix all together, put it into the skin again just as it was, in the same shape; sew it up, roast it and baste with butter; cut the loin into chops, and fry it nicely, as directed for the Northamptonshire hind quarter; lay the leg in the dish and the loin round it with stewed cauliflowers all round the loin; pour a pint of good gravy (see Mock Venison, 402) into the dish, and send it to table.
286. THE NECK can be boiled the same as the Leg.
287. STEWED BREAST OF LAMB AND PEAS.-Roast a breast of lamb a quarter of an hour, then put it into a stewpan with one quart of stock gravy; add a very small onion, a quarter of a carrot, the same of turnip, cut very small; let them stew half an hour gently, put in a little mushroom catsup, and a quart of green peas, already cooked; if requsite, thicken with a little flour.
288. TO ROAST A FORE QUARTER OF LAMB. - Your butcher having properly trussed it for you by breaking the shankbone near the shoulder with the back of the chopper, when it will turn back and skewer; it should be roasted as directed at 284. When done, take off the shoulder and squeeze a lemon over it, rub a bit of butter over it likewise, and add a little pepper and salt; then dish, pouring over the joint half a pint of hot water, to which put a teaspoonful or two of mushroon catsup.
289. MINT SAUCE should always be served with roast lamb, made thus:-Take nine or ten stalks of green mint, chop it very small, a pint of common vinegar, and three table-spoonfuls of moist sugar. It will be all the better if made a day or two before it is used.
290. A VERY FINE LAMB PIE.-Cut your lamb into pieces and season it with pepper, salt, cloves, mace, and nutmeg all
finely beaten ; make a good puff paste crust (see 201), lay it into your dish, then lay in your meat, strew on it some stoned raisins, and currants, cleaned, washed, and some sugar, then lay on some forcemeat balls made sweet, and in the summer some artichoke bottoms boiled, and scalded grapes in the winter; boil Spanish potatoes cut in pieces, candied citron, candied orange and lemon peel, and three or four blades of mace ; put butter on the top, close your pie, and bake it. Have ready against it comes out of the oven a sauce made thus:-Take a gill of sherry and mix in the yolk of an egg, stir it well together over the fire one way till it be thick, then take it off, stir in sugar enough to sweeten it, and squeeze in the juice of half a lemon ; pour it hot into your pie, and close it up again. Send it hot to table.
291. TO DRESS A LAMB'S HEAD AND APPURTENANCES.-Wash it very clean ; take the black part from the eyes and the gall from the liver ; lay the head in warm water ; boil the lights, heart, and part of the liver, chop and flour them, and toss them up in a saucepan with some stock gravy, catsup, and a little pepper, salt, lemon juice, and a spoonful of milk; strew over the head some bread crumbs and bake it an hour; lay it in the middle of the dish, the minced meat round it ; the other part of the liver fried with some very small bits of bacon on the minced meat and the brains fried in little cakes (see Calve's Head, 293) and laid on the rim of the dish with some fried parsley put between ; pour over it a nice rich gravy (see Mock Venison, 402).
292. A FAVOURITE WAY TO DRESS A LEG OF PORK.-Take a leg of pork, and hang it to roast ; put a good deal of port wine into the dripping-pan, and baste it well all the time it is roasting; if there is not enough put in at first, add more, it will take a bottle or three pints; cut the skin from the bottom of the shank in rows an inch broad; raise every other row, and roll it to the shank; have ready a pint of strong gravy, and put to it a pint of port wine, two anchovies, a bunch of sweet herbs, the yolk of four eggs boiled hard and powdered fine, with a quarter of a pound of butter, the juice of a lemon, and two spoonfuls of catsup; boil the gravy and port wine well together, and the anchovy
with it; strain these off, and add the other ingredients ; let them boil a few minutes, froth the pork, take it up, and pour the sauce over it-put some in a boat.
293. TO CURE YORK HAMS.-Beat them well ; mix half a peck of salt, three ounces of saltpetre, half an ounce of salt prunella, five pounds of coarse sugar ; rub the hams well with this, lay the remainder on the top; let them lie three days, then hang them up; put as much water to the pickle as will cover the hams, adding salt till it will bear an egg; boil and strain it the next morning; put in the hams, press them down so that they may be covered; let them lie a fortnight; rub them well with bran; dry them. The above ingredients are sufficient for three middling-sized hams.
294. CHOUDER - A SEA DISH. Slice off the fat part of a belly-piece of pork, and lay it on the bottom of a kettle; slice some onions, and mix them with all kinds of sweet herbs; strew them upon the pork; take a very fresh cod, bone and slice it, flour it, and then strew over it some pepper aad salt; put a layer of cod upon the pork, and then a thin layer of pork, and on that a layer of biscuits, and so on a layer of each, till the kettle is near fuil, or within four or five inches; pour in about a pint and a half of water ; cover it with paste; fasten down the top of the kettle very tight, put it on a slow fire about four hours, supplying the top of the kettle with hot wood embers; when it is taken up, let it be well skimmed; then lay it in a dish, pour in a glass of hot Madeira wine, with a little Jamaica pepper, some stewed truffles, morels, and oysters; lay the paste over it, which should be a little brown.
295. HOG'S PUDDINGS. - Boil one quart of clean picked groats, drain them; the next day put to them a quart of blood (taken from the pig when it was killed, having put a little salt in it and kept stirred at the fire, so as to keep it from congealing, or in a liquid state); one pound of beef suet chopped, pounded mace, cloves, and nutmeg; two pounds of the leaf cut into dice, a leek or two, a handful of parsley, a little thyme and sweet marjorum chopped, and some pennyroyal; six or eight eggs, a pint of raw cream, half a pound of bread crumbs that have had a
pint of scalded milk poured over them; season high with pepper and salt; fill the skins about half full. Prick them with a needle before they are boiled, then boil them, for which purpose have two kettles; half boil them in one, shift them to the other; lay them before the fire on clean straw. Boil the groats about three-quarters of an hour.
296. HODGE PODGE.-Cut a piece of brisket of beef into pieces, put water to it, a bunch of sweet herbs, an onion, some whole pepper in a bit of muffin, a carrot or two cut into pieces; two or three heads of celery cut into pieces; stew all till tender; lettuce may be added, young cabbage, and a few green peas; if the turnips are put in at the first, they will be boiled to mash.
297. MOCK TURTLE SOUP.-Scald a calve's head (see 290), which cut into inch squares; wash and clean them well, dry them with a cloth, and put them into a stewpan, with two gallons of stock gravy, sweet basil, knotted marjorum, savory, a little thyme, some parsley, all chopped fine, cloves and mace pounded, half a pint of Madeira or sherry ; stew altogether gently for four hours; heat a little stock gravy with a little milk (one pint), some flour mixed smooth in it, the yolk of two eggs; keep these stirring over a gentle fire until near boiling ; put this in the soup, stirring it as you put it in, for it is very apt to curdle; then let all stew together for half an hour, when it is ready to send to table, throw in some forcemeat balls (see 293) and hard yolks of eggs ; when off the fire, squeeze in the juice of half a lemon. The quantity of the soup may be increased by adding more stock gravy, with calve's feet and ox palates, boiled tender, and cut into pieces.
298. LOBSTER SOUP.-A pound of veal, cut it into thin slices, half a pound of the lean of a loin of mutton; season these with pepper and salt; then take a large fowl, draw it, and take out the fat; set these on in a small pot, with a gallon of water, and a bunch of parsley; take a couple of middling lobsters, or three small ones; take the meat out of the tails and claws, and bruise the body with the shell in a marble mortar very smooth, mince the meat very fine and shake over it some pepper, and a little salt; put all this into the pot, and cover it very close: when it has been sometime stewing.
put into it a few cloves, and some whole pepper; when it is reduced to half the quantity strain it off; if it is not rich enough, add to it some good stock gravy.
299. TO BOIL SALMON CRIMP.When the salmon is scaled and gutted, cut off the head and tail ; and cut the body through into slices an inch and a half thick ; throw them into a large pan of pump water; when they are all put into it, sprinkle a handful of bay-salt upon the water, stir it about, and then take out the fish; set on a large deep stewpan, boil the head and tail, but do not split the head; put in some salt, but no vinegar; when they have boiled ten minutes, scum the water very clean, and put in the slices; when they are boiled enough, take them out, lay the head and the tail in the dish, the slices round. This must be for a large company. The head or tail may be dressed alone, or with one or two slices, or the slices alone. It is done in great perfection in the salmon countries, but if the salmon is very fresh, it will be very good in London.
300. STEWED PIGEONS.-Make a stuffing, with the livers parboiled and bruised, a piece of butter, a few bread crumbs, pepper, salt, pounded cloves, parsley, sweet herbs chopped, and yolks of two eggs; fill the pigeons, tie at each end, half roast, put into some stock gravy, with an onion stuck with cloves, a bunch of sweet herbs, a slice of lemon; let them stew very gently till tender; strain the sauce, skim off the fat; put to it pickled mushrooms, cayenne, forcemeat balls fried, and hard yolks of eggs.
301. ASPARAGUS.-Scrape them, and tie them in small bundles, cut them even, boil them quick in salt and water; lay them on a toast which has been dipped in the water the asparagus was boiled in; pour over them melted butter.
302. CUSTARD PUDDING.-Boil a piece of cinnamon in a pint of thin cream; a quarter of a pound of sugar; when cold, add the yolks of five eggs well beaten; stir this over the fire till pretty thick, it must not boil; when quite cold, butter a cloth well, dust it with flour, tie the custard in it very close, boil it three quarters of an bour; when it is taken up, put it into a
bason to cool a little; untie the cloth, lay the dish on the bason, turn it up ; if the cloth is not taken off carefully, the pudding will break; grate over it a little sugarmelted butter and a little wine in a boat.
303. THINGS IN SEASON IN april.-Meat.-Grass-lamb, Beef, Mutton, Veal.

Poultry and Game.-Leverets, Rabbits, Ducklings, Pigeon, Pullets, Fowls, Chickens.
Fish.-Turbot, Soles, Skate, Carp, Trench, Trout, Herrings, Salmon, Smelts, Chubs, Mullets, Cray Fish, Crabs, Lobster.

Vegetables.-Sprouts, Young Carrots, Brocoli, Spinach, Parsley, Young Onions, Celery, Endive, Sorrel, Burnet, Radishes, Asparagus, Beet, Lettuce, All Small Salads, All Sorts of Pot Herbs, Cucumbers.

Fruits.-Pears, Apples.
305. TO STRENGTHEN THE EYES WHEN WEAK.-Put a teaspoonful of vinegar to half a pint of water and use it warm two or three times a day.-M. R.
306. FOR A COUGH.-Take two ounces of mutton suet cleared of all skin, and boil it in a pint of milk till reduced to a half pint; drink it at night going to bed, about as warm as milk from the cow.-M. R.
307. LEMON CHEESECAKES.-The rinds of two lemons pared thin and boiled till they are tender, beat them well in a mortar. Then beat a quarter of a pound of butter, a quarter of a pound of loaf sugar, the juice of one lemon, and four eggs, leaving out two of the whites; beat the eggs well before they are mixed with the other ingredients; fill your patty-pans a little more than half full, put a paste very thin at the bottom.-M. R.
308. TO MAKE FURMETY.-Take two quarts of milk and two pennyworth of wheat; mix well together; then put a quarter of a pound of raisins, the same quantity of currants, set it on the fire, let it boil ; then take one egg, and a little flour, beat it well, then put it to the rest; let it just boil, then pour it out and sweeten to your taste; two pennyworth is rather an indefinite quantity, and I fear, in the present day, much more would be required than two-pence would buy.-M. R.
309. APRIL, FOR THE BOYS AND GIRLS.-April is a showery month, and is apt to interfere with out-of-door sports, by making the ground damp and soft; we must still, therefore, display a preference for those amusements which can easily be transferred from the play-ground to the room. But young people should remember that they should get as much fresh air as possible. The spring sun is as invigorating to young people, as it is to the beautiful flowers that now begin to spring from the earth. Tops are always favourite toys, so we will begin our April amusements with


Fig. 1.
310. The Humming-Top.-This is a very pretty toy. It cannot be made by a boy, but must be bought at a toy-makers. It is made hollow, having at its crown a peg round which is wound a string; this being drawn quickly through a handle or key, sets the top in motion, the key and string being drawn away from the top, and remaining in the spinner's hand. In winding the string round the peg, be careful to do it closely and evenly; the best motion is given to the top by drawing the string away with a steadily increasing force. For this kind of top a wooden floor is preferable to any other. The top makes a loud humming noise, which is caused by the hole in the side striking against the air as the top spins, and from this it takes its name.
311. PEG-Top. -The best peg-tops are those made of box. These are the famous "boxers." Peg-tops must be purchased, as without a lathe you cannot make one; they are of various sizes and forms, the best have a close resemblance to a pear, the string with which it is spun should be about a
yard long, and not too thick; a button is fixed, or a knot is made, at one end. In winding your top let the string coil firmly and closely round the peg, but an expert player will show you the right method much easier than it can be described in print.
312. Peg-in-the-Ring.-Any number may play at this. Two rings are described on the ground, the first about a yard in diameter, the second about two yards. The players stand upon this outer ring, and from it throw their tops; one commences by throwing his top into the inner ring; while it is spinning the other players peg at it with their tops; if none of them hit it, and when it ceases spinning, if it rolls out of the ring the owner is allowed to take it up, and having re-wound it, to peg at the others which may be still spinning in the circle. Should any of the tops when they cease spinning remain within the ring, they are considered dead, and are placed in the centre of the circle for the others to peg at ; the player who succeeds in pegging any of the dead tops out of the circle, claims such as his own, or he may demand a ransom. Dead tops often get split in this game, in which case the victor may claim the peg as his pray. Tops with long pegs are the best for this game, as in ceasing to spin they describe a larger circle, and consequently more frequently roll out of the ring. There is a way of spinning a top, by drawing the hand sharply back towards the body, while throwing the top, which causes the top to jump out again, but this must be learnt by practice.
313. Whip-top. - Whip-top is played in two ways. The first way is, when you have no one else to play with, set your top in motion by means of a good whirl with both hands, and then keep up the motion with your thong, getting it along towards some previously determined mark. When played by two persons it is called "racing." Each player endeavours to get first to the goal with his whip-top. Another way is called "encounters," when the two players endeavour to upset each other's top by driving against it with their own. A whip with an eel-skin for a thong has been always held to be the best; but the thong may be made of various other things, such
as a slip of wash leather, of india rubber cloth, or any similar material. The whiptop is a plain top of solid wood, cut away to a point, upon which it spins.
314. Chip-stone.-For this game you must provide yourself with the wooden topspoon sold at most toy-shops. You determine upon your goal, or mark two lines upon the ground (which should be smooth and hard as boundaries. Two small stones - or buttons - are then placed upon one of the lines as a starting point.

The tops are then spun, and, while spinning, the player takes it up in his spoon, by dexterously inserting its edge under the peg of the top; he then pitches the top peg against the stone or button so as to chip it towards the farthest boundary. While the top continues to spin the player may take it up with the spoon as many times as he can, and when it spins out he must again wind it up, pursuing the same plan till he chips out. Of course the first who reaches " home" wins the game.


Fig. 2.
315. Blowing Bubbles.- When confined to the house by rain or bad weather, you may amuse yourself by blowing soap bubbles. A cup, or gallipot, in which is a little soap suds, and a pipe or a quill, will be all you will require. The young person who blows the bubbles should stand on a chair, as thereby the bubbles will take a longer flight, and afford great amusement to groups of play-fellows. Boys and girls fond of instruction may find plenty of food for the mind from the contemplation of soap bubbles. Example, why are soap bubbles round? They are round chiefly because the globular form is that of all the lightest bodies, and because they are equally pressed upon on all sides by the surrounding air. Again: why do they at first ascend, and afterwards descend. The reason is that the warm breath which they at first contain makes them lighter than the air; but as they cool, they become heavier, and submit to the attraction of the earth, which draws all bodies towards itself. The beautiful colours that appear when the sun's rays fall upon a bubble, and which are called prisma.
tic, because a prism or triangular piece of glass produces them also, are caused by the refraction, or bending of the sun's rays, as they pass through the bubble, or are bent back by its surface. In that very interesting book, "The Reason Why," you will find this fully explained; and if you take a lesson occasionally from that book, you will be greatly improved, and will find the acquirement of knowledge pleasant and easy.
316. The Pop-gun.-This toy conveys a little lesson in natural philosophy. Almost every boy has used a pop-gun, but very few, perhaps, have reflected upon the principle elucidated by it, viz., that of the substantiality of air. The pop-gun is formed of a piece of elder wood, out of which the pith has been taken. They are now made of other kinds of wood, the hollow part being pierced in a lathe. The rammer should be of a size to fit it easily ; the upper or handle end being broader and flatter like the buffer of a railway carriage. Pellets are made either of moistened tow or paper ; they should be of a size to fit the orifice of the pop-gun upon considerable pressure. First
put a pellet into one end of the gun; push it with the rod to the other; and then placing a second pellet at the end where the frst was inserted, push that sharply towards the opposite end and it will drive the first pellet out with great force; this is caused by the compressibility of the air to a certain point, at which it is dense enough to force out the pellet at the end, it then expands with great force, caus-
ing the pellet to fly away. There is a new metallic pop-gun, and sold at 6d. (See Fig. 3.) It is a capital toy for in-door play. A is a cork, which forms the pellet attached to a string; B is the handle, attached to the rammer, or piston ; C is the string attached to the cork, and (which is not absolutely necessary, only it keeps the cork from being lost) ; D is the air-tight piston, which requires no pellet. The string may be taken

from the cork, and a target being made of a large sheet of paper suspended against the wall, with a series of rings drawn upon it, a good game of skill may be played. It is well to have a number of corks, which may be bought at the cork-cutters at 1 d . per dozen.


Fig. 4.
317. The Sucker.-April's rainy days will suggest to you to practice the old pneumatic experiment with your "sucker." A sucker is made by cutting out a piece of leather of the size of a crown piece or an old penny ; this should besoaked in waterand
then hammered, or otherwise welded to make it soft and pliable ; a piece of strong string has then to be passed through a hole in its cantre, and fastened on the lower side. By wetting this and laying it upon a stone, pressing it down at the same time with your foot so as to exclude the air, you may with your string raise a stone of considerable weight. The reason of this is, that the air being excluded from the space between the stone and the leather, upon your pulling the string a vacuum is created, and the pressure of the external air upon the leather prevents its separation from the stone. Many boys will insist, perhaps, in spite of this explanation, that the leather sucks up the stone. This is a mistake, leather possesses no such power ; it is a dull, inert thing, and only acts as it is acted upon by surrounding matter.
318. SEE-SAW.-This affords fine fun, provided care be taken. A plank is placed across a felled tree or low bank, a wall, or anything similar, and a player seats him. self at each end; by the slightest exertion the apparatus is put in motion, and the players rise and sink alternately. A difference in the relative weights of the players is very easily adjusted by altering the centre of the see-saw-the lightest player taking a greater length of plank. Good boys and girls will not pley
tricks at this game, by violent motions, or anything that would tend to upset the players. A boy of good balancing powers will sometimes cliange this duetto game into a trio by standing midway upon the see-saw between the other players and keeping them on their alternate motion with his
right and left foot; but this requires great caution. A good safe way is to play this game in a yard thickly strewn with new straw; and if it can be practiced in the fields among the new hay or long grass it is truly delightful and mirth inspiring, is a tumble is then of little consequences.


Fig. 5.
319. Bow and Arrow.-We give here a few easy directions for the practice of this elegant sport. In another place we shall go fully into the subject of Archery. The first thing to observe in shooting with the bow and arrow is the position ; the heels should be placed a few inches apart; the head bent slightly forward and downward; the left arm must be held out quite straight to the wrist, which should be bent inward; the bow is to be held easy in the hand, and the arrow when drawn should be very near to


Fig. 6
the ear. The right hand commences drawing the string as you raise the bow. When your arrow is three parts drawn, take your aim; the point of the arrow should appear slightly to the right of the mark you aim at, the arrow is then drawn to the hand
and let fly. The trunk of a tree chalked with circles, or a circle marked on a piece of boarding, will serve for a target.
320. Bow Making.-It is not easy to construct a serviceable bow; and it is the best way to go to a good archery warehouse and buy one; but if you are bent upon making one for yourself, select two pieces of yew tree, laburnum, or thorn, of the length you require. Let one piece, that for the inside, be about half the length of the outside piece; lay them together and bind them firmly round with cord; about the centre place a piece of cloth or velvet for the hand. Do not weaken your bow by tapering off the ends two finely. For the string of your bow hempen string is the best; its thickness must depend upon the strength of your bow.
321. To Make Arrows.-Arrows are easily made of ash, deal, or poplar wood. For the most rudimentary stage of archery it will do very well to purchase a few laths of the lath-venders and make your arrows from these ; care must be taken to select those laths that are perfectly straight. Your arrows may be easily rounded with a penknife ; their nick or but ends should be clear and tree from jags, so that they may leave the how-string easily. For a point it will be sufficient to sharpen the end of your arrow ; but as we said above, for a 1 serious and scientific archery purposes, you must be content to procure your weapons from an experienced maker.
322. PHENOMENA OF APRIL.Sturm, in his delightful " Reflections," says, that the nearer we approach this charming month of April " the more we see the wild and melancholy appearance of winter wear off. Each day brings forth some new creation ; each day nature draws nearer to perfection." "Nature is dressed in smiles. Spring has donned her robes of brightest green, and uprises like a joyous bridegroom to meet the beauteous Summer in her bowers. All above, like white and downy feathers, the fleecy clouds are cradled in the sky, rocked by singing zephyrs, or sail along like fairy ships upon the azure ocean. All below is spread a fresh and gorgeous tapestry of green, inwrought with golden threads of cowslips, primroses and celandines, and jewelled by azure speedwells or delicately tinted cuckoo-flowers; while here and there the daisy-childhood's dearest ornamentpeeps up, with childlike modesty, pouting its budding lips in rosy eagerness to kiss the young year's feet as they pass along, glistening with diamonds of scented dew. The sky weeps tears of joy, wooing the earth to fruitfulness.
323. Everybody, from young Shakespere to the latest school-child, loves the month of April; its blossoms, its skies, its playful breezes, its scented showers. Sobered by passing years, as we sit in our study penning these lines, we catch again the spirit of our boyhood's springtide, and while we write we live again in that happy time. As then, with delighted feet we dashed among the primroses and violets; so now, in imagination, we would revel among sweet woodland scenery, and treat of buds and blossoms, with a poetry belonging to a bygone era of our life. But this is not a part of our present plan, and it is due to our readers to refuse to deviate from the path along which we have undertaken to conduct them, though sweet flowrets redolent with teeming memories and sweet associations lure us from the way.
324. The winds of March having dried the surface of the earth, the mould is rendered friable, and fitted to receive the seed from the hands of the husbandman. But moisture is necessary to the germination of the seed, and no sooner is it deposited in the soil, than April showers come with warmth and geniality. The rain that seems to fall
capriciousiy, is wisely and benevolently sent, and gives the character to the month as the most remarkable terrestrial phenomenon occurring during its passage. If we could in sensations be children once more, and feel again the marvellous astonishment we experienced when first we saw water come pouring from the sky, we should be able to understand how really wonderful and beautiful is an ordinary shower of rain. But familiarity has destroyed the perception of its marvellousness, so the world shoulders its umbrella and goes sulkily on its way. Let us not follow the fashion, nevertheless, but stop to inquire what is the cause and nature of a shower of rain.
325. The first question which arises is -How did the water accumulate in the air to form the rain drops? Whence came the fluid, and how did it ascend into the sky? These questions may perhaps be answered by others. If a few drops of water are poured and spread upon a slate, and left exposed to the air, they will shortly disappear ; what has become of them? The water is said to have evaporated, or to have passed away, in the state of vapour into the air. Of this property in the air to cause a gradual wasting away of the surface of water, we shall have to speak hereafter; we mention it here only to afford a clue to the origin of the water which falls as rain. From lake, river, sea, and ocean, the process is continually going on, and is active in proportion to the temperature of the air, its dryness and motion. If on a hot summer's day two bowls of equal capacity be filled with water, the one exposed to the rays and current of air, while the other is placed in a cold cellar, the former will be found to have lost a considerable portion of its contents, while the other remains unaltered. If the air be heated, its capacity for water is increased; if it be suddenly cooled, the vapour is condensed, having parted with latent heat which was necessary to preserve its rarefied condition. If, moreover, as soon as any portion of air is saturated or loaded with watery vapour, it is displaced by fresh dry air, the evaporation will be more rapid than under ordinary circumstances. Thus, under the influence of wind, the moisture of the earth is carried off with extreme rapidity. The water
which by this process rose upon the wings of the wind in March, as an invisible vapour dissolved in the air, becomes condensed again in April, to fertilise the earth from which it originally proceeded.
326. Let us verify this by experiment. When the kettle boils we observe that steam or watery vapour issues from the spout; at first the atmosphere does not dissolve it ; and while this is the case it is visible to the eye; before, however, it has been driven many inches from the vessel the steam disappears, and "vanishes into thin air." After this has gone on for a time, if the vapour be generated fast enough, the air ceases to be able to absorb, and a mist or steam is perceived in the apartment. While the air is yet transparent, that is to say, while it retains its power of abso:bing watery vapour, the fluid which passed from the kettle may be regained and made visible. A certain portion of heat supplied by the fire to the kettle was required to convert the liquid into vapour; the sensible heat became latent. Since this heat is necessary to the permanence of the vapour, it is plam that if it could be withdrawn the steam would return to its original form, fluid. This may be accomplished as follows. Place upon the table of a room where the steam has been generated, one of the tall cylindrical glasses used by the confectioners, capable of holding rather more than a pint. Take care that the outside is perfectly dry, and that the vessel is cool. Throw into the glass a mixture ${ }^{\circ}$ composed of five ounces of muriate of ammonia (sal ammoniac), and five ounces of dry nitrate of potash (saltpetre), and eight ounces of sulphate of soda (Glauber's salt); pour over the powder a pint ot the coldest water that can be procured, and stir gently with a glass rod or bone paper-knife. A large amount of heat will be absorbed by the mixture, and the air contiguous to the sides of the vessel will be cooled to such a degree that a portion of the vapour contained in it will be condensed and precipitated upon the sides of the glass, like drops of dew. In the same manner, we may observe that the moisture of heated rooms is condensed upon the window-panes when the air without is cold; and after a thaw, when the air is warmer than the walls of our houses, a similar deposit of water takes place.
327. The temperature at which the condensation of watery vapour begins is called the dew-point, and many ingenious instruments have been devised to ascertain the quantity of steam contained in the atmosphere at any particular time, by noticing the point on the thermometer at which dew is formed. We say the air is $d r y$ when water is quickly dried up, or absorbed by it ; on the other hand, we say the air is damp when wet substances dry only slowly. In the former case a greater degree of cold would be required to precipitate the water, or condense the vapour ; while in the latter the slightest reduction of temperature would induce the re-formation of water. When the condensation of vapour in the air, under ordinary circumstances, occurs by contact with cold solid bodies, it is called dew; when, on the contrary, the whole body of air is cooled, mists, clouds, or rain are formed.
328. The vapour in which clouds are composed, and which supplies the fluid to the showers of April is in a peculiar condition. A scientific traveller on the Alps describes the appearance of a mist, by which he was enveloped, and which was almost stagnant. He was greatly astonished at the size of the drops, as he imagined them to be, the more especially when he saw them float along without any tendency to fall to the earth. These bodies, which were of the size of the largest peas, proved, upon investigation, to be vesicles, or small bubbles of water of extreme tenuity. It is considered probable that in clouds and mists the fluid is always in this singular condition, though there may be great difference in the size of the vesicles. If clouds, mists, or fogs consisted of drops, they would immediately fall to the earth; indeed, it has been calculated "that a drop of water, one thousandth part of an inch in diameter, in obedience to the action of gravitation, would acquire a descending velocity equal to nine or ten feet per second; whereas we see clouds hover at a small elevation for hours. It is probable that this vesicular condition of water is produced when two volumes of air of different temperatures, and in different electrical conditions, meet and mix together; if this, however, takes place too rapidly, drops, instead of vesicles, are formed; or when the stratum of air in which the vesicles float is suddenly con-
densed, the globules approach each other and merge, and a fall of rain is the consequence.
329. It must be admitted, nevertheless, that the exact circumstances which produce the vesicular state of water are not known, nor are scientific men prepared to state positively what conditions are necessary to its permanence, or its change into the form of rain drops.
330. Some extraordinary falls of rain have been recorded: on the twenty-fifth of October, 1825, a fall of rain equal to the depth of thirty-two inches, fell in twentyfour hours at Genoa; on the ninth of October, 1827, there fell at Joyeuse, in the south of France, thirty-one inches in twentytwo hours. A curious circumstance attending the fall of rain is, that the quantity collected by rain-gauges, or instruments used for registering the depth of water which falls, varies in an unaccountable degree with the elevation of the instruments. The quantity collected by raingauges on the surface of the ground is considerably greater than when the instruments are placed at some elevation above. On an average of thirteen years the quantity of rain which fell annually in the court of the Observatory at Paris, was twenty-two inches; while the mean quantity which fell on the terrace, ninetytwo feet above the level of the court, was less than twenty inches. A rain-gauge placed at the top of York Minster showed a fall of nearly fifteen inches between February, 1833, and February, 1834; while another perfectly similar instrument on the ground registered nearly twenty-six inches. The cause of these singular discrepancies is not understood, but is supposed to depend upon the currents of wind, which interfere with the perfect actions of instruments elevated from the ground.
331. The average quantiy of rain which falls in a year in any given place, depends upon a great variety of circumstances, principally those connected with climate, \&c.
332. The sky is usually overcast by a dark cloud before a shower, but instances are on record where rain has fallen from a serene cloudless sky. This curious phenomenon is said to occur frequently in the island of Mauritius in the evening, when the stars
are shining; it has also been observed in Paris, Geneva, and Constantinople.
333. In tropical regions the rains are periodical, as before mentioned; they fall only at certain seasons, and for an hour or two daily. The drops are said to be larger than those which we are accustomed to see, and owing to their greater weight strike the earth with considerable violence. "The morning is clear, the clouds gather towards mid-day, heavy rains fall in the afternoon, and the evening is again clear aud fine. At times the sky is unclouded for months together."
334. Rain is unknown in some parts of the world, viz : the arid deserts of Africa and Arabia, the deserts of Gobi, parts of Mexico and California, and the west of Peru.
335. From numerous observations, it has been proved that the mean, or average annual temperature, generally occurs on the twenty-fourth of April and the twenty-

336. In England the course of the heat is as follows :-The temperature rises from the middle of January until the middle of July, from which period it diminishes, firally reaching its minimum again in the middle of January.

## 337. A CHAT ABOUT ANAGRAMS. <br> If we dive into history for anagrams, we

 shall find coincidences as unexpected and amusing as those which have no particular application. These ingenious devices seem to have been in special favour during the sixteenth and seventeenth centuries, and to have served a variety of purposes. Of our Queen Elizabeth, her friends made the following one:$$
\begin{aligned}
& \text { Elisabetha Regina Angliæ } \\
& \text { Anglis agna, Hiberiæ lea. }
\end{aligned}
$$

Thus, from the name Elizabeth, Queen of England, they showed her to be a lamb to the English, a lioness to Spain. Her adversary, Mary Queen of Scots, was not without her complimentary anagram; in her name, Maria Stevarta, was found Veritas armata, or, Truth armed. Her fate was also described in a transposition: "Maria Steuarta, Scotorum Regina"'(Mary Stewart, Queen of Scots), may be arranged into "Trusa vi regnis, morte amara cado" (the kingdom being overthrown, I fall by a bitter
death). Her son, James Stuart, makes $a$ just master; and Charles James Stuart may be transposed into claims Arthur's Seat; which, whether referring to the throne of England, as the seat of the celebrated King Arthur, or to the mountain so called, overlooking Holyrood Palace, is equally appropriate.
338. On the opposite side of the Channel, our French neighbours were nowise behind the English in witticisms of the same kind. In the name of the celebrated beauty, Marie Touchet, they discovered the truth, Je charme tout (I charm every one). Fiere Jacques Clement, the friar who murdered Henry III., has letters in his name which thus depict him, C'est l'infer qui m'a cree (It is hell whence I have my origin). Henry III. had been subject to this opprobrious appellation during his life: from his name, Henri de Valoi, his enemies made Vilain Herode.
339. As the seventeenth century proceeded, men of literature and private persons became famous for their anagrams. Randle Holmes, who wrote a book called the "Academy of Armoury," treating of heraldry, was changed into Lo! men's herald; and -John Felton, who stabbed the Duke of Buckingham, and afterwards made no attempt to escape, by the spelling of the time, became Noh! flie not.
340. A lady of the time of Charles I., whose name was Eleanor Davis, joined herself to the Puritan party, and advocated the cause by preaching and prophesying. She laid claim to her prophetic power chiefly from the fact that of the letters of her name could be nearly made the words, Reveal, O Daniel!-and although, to have been quite correct, an $s$ should have been omitted, and an $e$ added, it did not matter -she denounced all kinds of misfortunes on the Cavaliers. She was at once taken up, and tried for sedition; but neither the lawyers nor judge could make anything of the case. Being well versed in Scripture, and endowed with more than womanly fluency, she returned answers which baffled all the court; although, when it seemed she had the best of the argument, one of the barristers determined to combat her with her own weapons, and begged to inform her that the anagram on which her pretensions rested was clearly inadmissable,
since the words Dame Eleanor Davis made never so mad a ladie! The abashed prophetess was silenced, and dismissed with a caution to examine her words with more accuracy another time.
341. The poet Waller found in his name the poet's crown-laurel; and Crashave, whose intimate friend was Car, made from his own name, He was Car. He thus commemorates the friendship and the coin-cidence-
"Was Car then Crashawe, or was Crashawe Car?
Since both within one name combined are."
342. In speaking of poets, it will not be out of place to name a modern anagram, which is too appropriate to pass over. The words, We all make his praise, may be combined into the name of William Shakespeare.
343. A very remarkable transposition is the following: Georgius Monc, dux de Aumerle (George Monc, duke of Albemarle), who was the means of bringing back Charles II. to the throne of his ancestors. The letters of his name may be placed so as to make Egoregem reduxi Ano. Sa. M.DCLVV. (I restored the King in the year of our salvation 1660).
344. In 1785 the Abbé Miolan made an unsuccessful attempt at a balloon ascent, in the gardens of the Luxembourg. The people, enraged at losing their expected entertainment, were disposed to be mischievous, till their anger was turned to merriment by a wit who discovered, in the name of L'Abbe Miolan, the words Ballon abime.
345. Nor has our century been behindhand in the discovery of ingenious transpositions. When George IV, exercised the regal authority during the life of his father, the wits of the day observed that the title Prince Regent was nothing more than $G$. R. in pretence. Sir Francis Burdett, in his early days, was in name Frantic disturber: The Whigs said of Patriotism-Pitt marrs it! Orator Henry Hunt was justly said to contain no one truth, Harry. On the occasion of the death of the Princess Charlotte Augusta of Wales, it was observed that her name made $P$. C., her august race is lost: oh, fatal news ! The words Revo. lution Francaise will turn to Veto-un Corse la finira (the veto was the last semblance of power left to poor Louis XVI.) The arranging Napoleon Bonaparte into
bona rapta pone leno (lay down the goods you have carried away, thief), was, to say the least, not complimentary. Almost every one knows that Horatio Nelson is Honour est a Nilo (Honour at the Nile); and of our own glorious Duke one or two may be made. The event of the war might have been descried in two of his titles, had he possessed them. Wellington and Douro says, Our golden land to win. Arthur Wellesley of Wellington and Douro, turns to And he finds well true glory on Waterloo. It will be observed there is a deficient $l$. If the reader will not dispense with that, one o must be taken from Waterloo; and the sentence will stand-Lo! he finds true glory well, and at Waterlo. Field Marshal the Duke, makes The Duke shall arm the field; which may be added to either of the former phrases at pleasure.

## 346. ENIGMA.

We float together on the rippling stream, Together dive into the eaglets' nest;
And in the stars that now so brightly beam
We rise triumphantly, and sink in rest.
You'll meet us twice in all the streets you see,
We dwell where Shakspere found his earliest home;
And, tho' a place of some celebrity,
Stratford will fall when we from Stratford
roam.
Though in all states united we appear,
We are divided in the senate-house;
You'll find us soon (and all will then be clear),
One in a rat! the other in a mouse!

## 347.

## ENIGMA.

I often am seen,
Red, yellow, and green,
Though more frequently white, I must own ;
I am large, I am small,
Found in cottage and hall,
And am valued wherever I'm known.
Though of parentage mean,
I am used by the Queen,
And have friends in the grave and the gay;
If you wish meto go,
You but deal me a blow,
And my beauty is banished for aye.
Assistance I bear
To the ladies so fair,
As a part of their toilets I make;
I am varied in form
As the waves in a storm,
Yet of service in any I take.
Although valued and used,
I am often abused,
And have heard it asserted by some,
Through my innocent aid
Much crime has been made,
And sad sorrow and misery come.

A house without me
Would most comfortless be,
As I help to protect you from cold;
Now, ladies, pray guless,
My cognomen confess.
For my mission already is told.

## 348.

ENIGMA
Behead the first faint dawn of coming day,
And take the heart of the lightning's ray;
The head of a flower most simple, but sweet,
And the first or the last of the hour when we
meet;
The head of a king of romantic fame,
And the sovereign of deserts who gave him his
Of a general who wept when the world he had
won,
That the course of his victories no further could run;
Of one who in ancient times ran mad,
And a bird whose mistake to a poet was sad.
These arrange in a row,
And to you they will show
The name they will show
The name of a chief
Whose cruel destructions exceed all be-
lief,
Marianne.

## 349.

## CHARADE.

I'm in every country, though never the same,
For in every climate I alter my name ; same, strife;
Tho' I'm often found dead, I have ne'er lost my life.
I'm disgusting and beautiful, bland and
austere;
I am oft hypocritical, often sincere;
I am sometimes nonsensical, sometimes pro-
faue: Yet without me all Socrates' wisdom were
vain.
I was hated in Sparta, confined and neglected;
But at Athens I always was highly respected.
Some say in the eyes I may often be seen ;
But 'tis known I oft come from the mouth of a
queen.
Without me no judge gives his charge to the
Wut I sometimes take wing if he flies in a fury.
When some members of Parliament get up to
They would lead you to think me unmeaning
and weak. and weak.
hurl'd, Chatham his thimder of eloquence
I was thought the most wonderful thing in the
world.
I world.
I was used before Paradise ever was made,
And by me was temptation to Adam conveyed.
Though Noah invited me not to embark,
He made use of me during his stay in the ark. me;
me me believe they've a right to abuse
While;
While many are never permitted to use me.
Since, therefore, my qualifications you see,
Can you guess what my signification

## 350. ANIMALS OF CHINA.

The denseness of the population has long since entirely driven out all wild quadrupeds; and there are also few domestic ones, such as are found in European countries. Beasts of burden are in a great degree superseded by the means of transport afforded by the numerous rivers and canals, and by the coolies or porters, a class of athletic men, who take the place of animals in carrying burdens and in dragging boats. Animals are excluded, to leave more food for men. There are no meadows for feeding cattle; but the entire soil is used in raising food for the inhabitants. Wild cats are sometimes caught, and are considered a great dainty. Monkeys are found in the southern provinces. What few horses and asses are found in China are small, and very inferior in every respect. The buffalo is sometimes used in ploughing. Dromedaries are used between Peking and Tartary. There are also hogs, goats, and sheep. There is but one variety of dog in the country, an animal about one foot high and two long, resembling a small spaniel. Rats are very abundant, and furnish the common people with meat. They are very large, and destructive to crops. Of the $b i r d s$ in China, there are the eagle, the falcon, the magpie, crows, sparrows, cormorants, curlews, quails, larks, pheasants', pigeons, the rice-bird, and many species of aquatic birds. Cormorants are used by the Chinese for catching fish. The falcon is imperial property, and the magpie is sacred to the reigning family. Fish form a very important part of the food of the Chinese, and great care is taken in artificial fish-ponds. The gold and silver fishes are kept in glass globes as ornaments. Among the fish eaten are the cod, sturgeon, mullet, carp, perch, sea-bream, \&c.; crab-fish and oysters are common on the coast. The larger species of reptiles are unknown in China. Frogs, lizards, and fresh-water tortoises are common. Venomous serpents are very rare. The insects of China are numerous. The silk-worm is the most important, affor ding employment and riches to thousands of the inhabitants. The Chinese excel all other nations in rearing the silk-worm. The northern and western provinces are terribly afflicted by the plague of swarms of locusts. Their
voracity is such that it is not uncommon for them to occasion so much destruction as to reduce thousands of the people to starvation. Scorpions and centipedes are abundant. Spiders are numerous; one species is very large, and devours small birds after catching them in their webs constructed on the branches of trees. It is peculiar in China. Butterflies of gigantic size and brilliant colours abound in the neighbourhood of Canton. There is a kind of bee, called the white-wax bee, furnishing the whole nation with wax, which it deposits on a particular kind of tree furnished by the natives with nests to attract the insect. Fireflies are common. White ants are also numerous and troublesome. The Chinese eat many kinds of insects, as locusts, grasshoppers, ground-grubs, and silk-worms.

## 351. TO PREVENT INCRUSTATIONS

 IN BOILERS.-To persons having the care of steam engines, the following, from an American journal, may be valuable:-Two or three shovels of saw-dust are thrown into the boiler; after which process there is no difficulty from lime, although using water strongly impregnated with it. The inside of the boiler is as smooth as if just oiled. Whether the lime attaches itself to the floating particles of saw-dust, instead of the boiler, or whether the tanic acid in the oak saw-dust forms a salt with the lime, which will not attach itself to iron, remains to be explained. The saw-dust was placed in the boiler for the purpose of stopping a leak. The experiment is cheap and easily tried. Saw-dust is not a new discovery for the prevention of incrustations in steam boilers. In 1846 a patent was obtained in America for the use of mahogany saw-dust to prevent incrustations in boilers ; exhausted tan bark and dye woods have also been used for the same purpose. Blocks and chips of oak would have also been used.352. REPUTATION.-The two most precious things on this side the grave are our reputation and our life. But it is to be lamented that the most contemptible whis. per may deprive us of the one, and the weakest weapon of the other. A wise man, therefore, will be more anxious to deserve a fair name than to possess it, and this will teach him so to live, as not to be afraid to die.


EILKWORMS' EGGS, CATERPILLARS JUST HATCHED, AND ALSO FULL-GROWN, CHRYSALIS,
$\triangle N D$ MOTH.

## 353. SILK AND SILK-WORMS.

It is said that Signor Lotteri has ascertained that a silky substance can be made from the bark of the mulberry tree, and that by maceration, good silk and fine paper can be made therefrom. The subject, though exceedingly interesting, is, nevertheless, not new, the idea of obtaining silk from the mulberry tree having been already entertained, and samples of woven silk actually produced therefrom. A gentleman largely connected with the silk trade mentioned to us that a year ago he had a piece of silk manufactured from the tree. The announcement which, at the present time, attracts attention, is as follows :-
354. "A Substitute for Silk-worms. -Happily, there would seem now to be little need of the eria, or the Chinese silk-worm, or of the cocoon of commerce, for the production of silk will ere long in all probability be derived, hitherto existed the but the leaf on which it has the insect, but it is now not the breeding of species which was its only food, and which from that circumstance gave the savant the cue from
led to his making the intimated discovery.

His name has not yet been announced, although we should imagiue it was none other than Signor Lotteri, who in the course of last year fully ascured from the a bark substance could be prothat by maceration of the mulberry tree, and could be easily prenared thilk, and paper also, in question, ruminated therefrom. The savant stance of the silk-worm, it is said, on the circumof food, came to the conclusion on one description substance must lie conclusion that "the silky vegetable matter, which the animal, but the therefore "analysed the supported it. He mulberry-leaf, and, by boiling it to a produced every description of silk thick paste quantities." Such a substance being obtained from that species of leaf, it is not at all obtained that from the Chinese oak and thal unlikely plant a somewhat similar result might be obtained. Be that as it may, and the truth be the other being shortly corroborated, neither Moreton-bay need sigh for the introduction of the cotton plant, nor the northern and southern pression or in the shed their blcod for the supThis is the land-every of slavery.
perate zone is, m-every land within the temrearing of the is more or less-favourable to the Every one the ine, the mulberry, and the olive. of a small spot of ground theressor or occupier great substitute ground therein, may rear the weaken more and more cotton, and in so doing, parently indispensable this lamentable and apparently indispensable adhesion to slavery


SILKWORM CATERPILLAR, PLACED IN A PAPER CUP, TO FORM ITS COCOOX ; SKEIN OP SILK OBTAINED FROM THE COCOCN.

He may "pint money into his purse;" and, clothing his family and himself in "silk attire"-such as imperial Cæsar had not dared to wear-cirawn from the branches that give him shap and refreshing sustenance by day and by night afford him the sleep of contentment, he may well thank Heaven that he is permitted to reap the fruits though he have shared not the labours, of the thoughtful and perhaps ill-recompensed analyser of the enigmatical phases of nature. He may cheerfully and confidingly believe thenceforth that in the varied productions that she surrounds him with lie hid the main causes of the world's progress and the renewing sources of peace and good will to men."
355. As the matter is now under consideration we have thought the present an appropriate time to introduce to the notice of our readers the Silk-worm, and to say something of its natural history.
356. The Silk-worm is a moth (Bombyx mori) which spins its silk in forming its cocoon, when about to pass from the state of the caterpillar unto that of the chrysalis. It comes out of the egg in the latter part of May, or early in June; and as the worms w 11 confine themselves to those places where food is provided for them, the rapid
progress of their growth, their curious changes, and the production of their silk, may be watched from day to day, and afford a most interesting study. We recommend our frienls to obtain from twenty to thirty silk-worms' eggs, and then to attend to them according to the instructions we are about to give.
357. The eggs (which may be obtained of the herbalists in Covent Garden market at 6 d . per hundred, and probably of other herbalists in the large markets of country towns), will be found to be about the size of a pin's head, and are generally firmly attached to the paper upon which they were laid. A paper tray, about twelve inches long by eight wide, should be made by turning up the edges of a piece of cardboard, or of stiff paper. Into the bottom of this the eggs should be placed, and when the time of hatching arrives, they should be watched from day to day, and some young lettuce leaves be provided for the young caterpillars.
358. The caterpillars when first hatched
do not exceed a quarter of an inch in length. and they will commence eating food immediately. Their growth will be very rapid and when they are about eight days old, their heads become considerably enlarged, they turn sick, refuse food, and appear in a lethargic state for about three days, during which they seem as if they were about to die. This sickness, however, arises from the pressure of their skins, which become too tight for the increased size of their bodies. As soon as they have cast their skins, they will be re-invigorated, and eat a large amount of leaves. They will cast their skins four times in the course of their growth. About the time of the first or second change of skin, they should be provided with mulberry leaves instead of lettuce leaves. The change should not be made all at once, but some lettuce and mulberry leaves should be given them together, until they are found not to touch the former.
359. The silk-worm remains in the caterpillar state about six weeks, and when full grown it is only two inches and a half in length, a fine caterpillar of a yellowish grey colour. When full grown, it ceases to feed, and begins to form a loose envelope of silken pipes. When this is observed, it should be taken from the paper tray, and each worm be placed in a cup of twisted paper, hung against the wall or in a warm aspect; when it will then enclose itself in a ball of silk, called a cocoon, within which it passes into the chrysalis state. It remains in the chrysalis about fifteen days, and then comes forth in the form of a moth. In escaping from the cocoon, it destroys a portion of the silk; to prevent which the silk-dealers destroy the chrysalis, or unwind the silk of the cocoon before the chrysalis is broken by the moth.
360. Those who keep silk-worms for instruction or pleasure, will do well not to interfere with the natural life of the worms, but to watch their whole history to its fulfilment. Each moth will produce a large number of eggs; and the silk supplied by the cocoons may be wound off and tied into skeins, and these being laid between the leaves of books, may be preserved for many years to remind the naturalist of the usefulness of the silk-worm.
361 "I was occupied the other day,"
says Mr. Jesse, in his 'Gleanings,' " in his flecting on the benefits accruing to mankind from a remarkable instinct impressed by the great Creator on that insignificant insect the silk-worm. What warmth anl comfort does it afford to us! How useful, convenient, and elegant is the clothing we derive from it! But this is not all. Let us, for one moment, consider how many thousands of persons are indebted to it for almost their very existence, in consequence of the employment it affords to man in nearly every
country of the known world country of the known world. There is, however, another striking and interesting peculiarity attending the silk-worm. It is this; that while the caterpillars of all the other tribes of moths and butterflies, when they have arrived at a certain state of maturity, show a restless disposition, and wander about and hide themselves in a variety of places in order to spin their cocoons, preparatory to their making their escape as moths, \&c., the caterpillar of the silk-worm, on the contrary, is content to remain stationary in the open tray, or box, in which it may be placed. After consuming its immediate supply of mulberry leaves, it waits for a further quantity; and when the period arrives for spinning its cocoon, instead of showing any migratory disposition, it seems to place itself with confidence under the care of man to provide it with a suitable place for its convenience and protec. tion. In the fly or moth state, the female is quite incapable of flight; and the male, although of a much lighter make, and more active, can fly but very imperfectly. This latter circumstance insures to us the eggs for the following season, thus completing the adaptation of the insect in its different stages to the purposes it is destined to fulfil for our advantage. To my mind this striking peculiarity in the habits of the silk-worm illustrates the care and kindness of the Almighty, in thus making an apparently insignificant insect the means of so many important benefits to man."
362. Of the importance of the silk-trade to commerce, it is scarcely possible to give an adequate idea. But some approximation to it may be gathered from the statement that the silk imported annually in the unmanufactured state amounts to about 7,000,0001bs. weight.
363. When the reader looks upon the
simple eg̣g of the silk-worm, and reflects that during a long and dreary winter the germ of life has slept therein; when he sees that germ awake, and thrive and grow with wonderful rapidity; when he sees the large caterpillar spin a covering of silk around it, and then form over itself a coffinlike chrysalis in which it appears to lie dead; and when he sees that from this seeming grave there bursts a beautiful moth clad in silken raiment; he will take these things into his most serious contemplation, and will learn from the history of a worm to appreciate the works of an Almighty God.
364. LONGEVITY.

A work on the "Decline of Life in Health and Disease" has just appeared, from the pen of Dr. Barnard Van Oven. Some curious statistical information is given, which will interest our readers. One table exhibits a list of no less than 6,201 individuals who are said to have lived to the age of 100 years or upwards; of whom 1,519 have died between 100 and 110 years of age; 331 between 110 and 120 years; 99 between 120 and 130 years; 37 between 130 and 140 years; 11 between 140 and 150,17 beyond 157 , of whom two are said to have attained 200 years. To these are added 55 persons, said to be still living, whohave already exceeded 100 years; 495 "additional instances;" 2,179" lives about 100 in Russia;" 750 " in Sweden ;" and 708, who are reported by the Registrar-General to have died (in England and Wales) at the age of 100 or more, during five years, out of $1,237,986$ deaths in a population of 18,897,187.
365. Concerning this statement, Dr. Van Oven admits that it must be regarded as very short of the number which might, with proper attention, be collected. It is also fair to mention that there are no authorities for some of these instances; the presumption of their correctness remains.
366. The following are among the most remarkable cases of aged persons performing remarkable actions. One individual, whose name does not appear, is related by Mr. Easton, in his book on "Human Longevity," to have performed a journey of sixty miles on foot in two days, in his 100th year. On the same authority, Mary Wilkinson, who died in her 110th year, is said, in her 99th
year, to have walked from Ronold Kirk, in Yorkshire, to London, a distance of 290 miles, in five days and three hours, carrying on her back a keg of gin and provisions for her support during her journey. P. Coets, a soldier who died in Flanders in 1789, aged 104, who was remarkably strong, that, at seventy-three, he moved a butt of beer from a cart "without labour." Jane Davis, an Englishwoman, who died in 1777, at the age of 113, is said, in her 103rd year, to have reaped wheat against a man a whole day.
367. The following cases of hereditary longevity are related by Dr. Oven : - P. M'Donald, a fisherman, a native of Scotland, died in 1772 at the age of 109. His father attained the age of 116 , his grandfather 107. Mary Teach, an Irishwoman, who died in 1790 at the age of 100 , lost her father at 104, her mother at 96, her uncle at 110 ; and she had two sisters living at her death whose united ages were 170. A Mrs. Keithe, who died in England in 1772, at the age of 113 years, and whose senses are said to have been unimpaired until fourteen days before she died, left three daughters to bemoan her loss, who respectively attained the ages of 111,110 , and 109 years. Five score years and ten appear to have been the natural term of life in this extraordinary sisterhood. The case, however, is not unique. Legge is the name of another family, of whom four sisters attained respectively the ages of $110,106,100,112$. Their father, Edward Legge, had nine other children, many of whom attained to a very old age. J. Mirehouse, a yeoman, who was living in England in the year 1805, and who entertained between thirty and forty friends on his 100th birthday, buried his father at 95 , and his mother at 100 ; one sister died at 93 , and three others lived from 80 to 85 years. A Mrs. Pilman, an Englishwoman, and her five sisters, attained the average age of 87 years each, one having lived to 100 , another to 95 , a third to 88 , \&c. A German soldier, whose name does not appear, but who lived to 180, having fought at the battle of Pultowa under Gus. tavus Adolphus, married at 93 , had, in 1803, 186 descendants, among whom were two grandchildren each 100 years old. (Vide Philosophical Magazine, No. 66, Nov. 1803.) - Eccles, a spinster, an English.
woman, who lived to complete her 106th year, had several relatives who lived to 90 and upwards; her father lived to 107, her sister to 104. Of Thomas Parr, the wellknown English labourer, who died in 1635 at the age of 152 , two grandsons attained the ages of 127 each; another grandson 109, a great-grandson 124 , and a nephew 113. Perhaps it may gratify those who seek for health, by their attachment to gardens, to note the age that some of our English borticulturists have attained. Purkinson died at about 78; Tradercant, the father, died an old man; Switzer, about 80 ; Sir Thomas Browne, 77 ; Eveleyn, 86 ; Dr. Beale, 80 ; Jacob Robart, 85 ; Collinson, 75; a son of Dr. Laurence (equally fond of gardens as his father), 86 ; Bishop Compton, 81 ; Knowlton, gardener to Lord Burlington, at 90 ; Miller, at 80 ; Lord Kames, 86; Abercrombie, 80; Gilpin, 80 ; Duncan, a gardener, upwards of 80 ; Hunter, who published "Sylva," at 86 ; Speechley, 86 ; Horace Walpole, 89 ; Bates, a celebrated horticulturist of High Wickham, 89; Sir Joseph Bankes, 77; Joseph Cradock, 85 ; James Dichton, 89; Dr. Andrew Duncan, 83; Sir A. Price, 83. Mr. James Nolan, of Knockidrian, county Carlow, born on 22nd July, 1742, is now, of course, in his 112th year, and has lived within the reign of five sovereigns. Mr. Nolan's eldest sister, Mrs. Bryne, lived to be 104, another sister to be 85 , a brother to be 94 , and another brother to be 82 .
368. MEDICAL.-That The Corner Cupboard may be complete in all its parts, and no portion of it without a species of useful and domestic instruction, we propose to add to its stock of practical utility the advantage of a Family Physician and Household Surgeon. In fact, to give a brief but lucid history of those diseases that most frequently attack adult age, youth, and infancy, with the treatment peculiar to each. Not crude and popular nostrums, but sound and scientific advice, conveyed in such a form, that a parent may, with the utmost safety and confidence, administer what is prescribed either to an infant or an adult, with that certainty of benefit as if ordered by the family practitioner.
369. This is not done with the idea of superseding the medical man, where fami-
lies have the means of employing one; but for the use of those who may not be so fortunately situated; and as it is impossible to say to what part of the world The Corner. Cupboard may not find its way, the information we purpose giving will be of incalculable advantage to the emigrant or voyager, and of great utility and assistance in all cases of emergency, or where professional aid is not attainable.
370. As respects the surgical part of our scheme, advice and instruction in all cases of accident, suspended animation, wounds, and casualties generally, will be arranged under such convenient heads, that any information can be at once obtained by simply referring to the class under which the accident is set down. At the same time such information on regimen, dietary for invalids, the formation of poultices, hot and cold baths, and all necessary instructions on matters of detail, will be explained in a practical manner, so that our medical section shall be a complete and useful family doctor. That it may be consulted at all times with implicit confidence, this department will be conducted by a medical man of thirty years' experience in the practice of every branch of the profe:sion.
371. To make this feature of our magazine more immediately acceptable to parents, we propose treating the diseases of infancy and childhood first in our series, to be followed by those affections that generally attach maturer years and age. With this brief prospectus of our intentions we will at once proceed to the consideration of the
372. Diseases of Childhood.-Erup. tive Diseases.-The peculiarity of this class of disease is, that it exhibits one of its most remarkable symptoms on the skin; throwing out on the surface of the body an eruption which differs in character according to the nature of the disease; so that the disease itself is at once distinguished by the character of the eruption.
373. The most important forms of this class of disease, and those to which childhood are most subject, are Small-pox, Glass or Chiclen-pox, Measles, and Scarlet-fever. 374. There arecertain peculiarities common to all these diseases, and distinctive features to each, which parents would do well to fix in their memories, and which for that pur-
pose we will define, before commencing seriatim.

1. Each disease is preceded and attended by fever.
2. Each is followed on the third or fourth day by an eruption on the face, neck, breast, or arms, extending generally over the body.
3. Small-pox is always attended in its first stages by sickness and vomiting.
4. Measles is preceded by cough, running at the nose and eyes, and symptoms of cold.
5. Scarlet-fever is characterised by great heat, difficulty of breathing, headache, and sore throat.
6. Chicken-pox has all the mild characters of small-pox.
7. Measles.-This disease, which may attack every period of infancy and childhood, and is not unfrequently met with in adult age, is most prevalent in spring and autumn, and frequently assumes an epidemic character, when from long continued rains the atmosphere has become loaded with moisture.
8. Measles, unlike most of the diseases of infancy and youth, where the premonitory or indicative symptoms are unobserved or disregarded, is usually suspected and understood as soon as the child exhibits the earliest and commonest symptoms, and the parent in consequence is generally on her guard before the little patient has become constitutionally disturbed by the disease.
9. Symptoms.-The first symptoms of measles of which we can take positive cog. nisance, are a slightly accelerated pulse, a not dry skin, succeeded by cold and shivering, pain in the head, langour, fatigue, and listlessness.
10. This chain of symptoms may exist only for a few hours, or it may extend over two, three, or more days, before the other and more characteristic marks of the disease set in.
11. This transitory stage is familiar to all mothers and nurses, and the patient is said during its continuance to be "hatching the measles." Many erroneous and very objectionable practices are at this time adopted by non-professionals, in the hope of shortening the stage and at once developing the rash. The most general means resorted to for this purpose are keeping the child
studiously excluded from fresh air, loading it with clothes, and giving it hot and stimulating drinks, balm, saffron, or mint tea, or repeated doses of sulphur and milk. The best of such remedies are seldom necessary, and most of them are generally hurtful.
12. The second stage of measles-which may, and often does follow the first immediately, without any interval whatever -is characterised by a quick pulse, a coated tongue, increased heat of the skin, flushed face, a dullness and peculiar heaviness of the eyes, attended by a running from the nostrils of a thin acrid mucous, that frequently chaps and irritates the lip; at the same time the patient, if old enough, complains of pain in the head, just over the forehead. The lungs from the first are more or less affected from being overcharged with blood, and a short dry cough-an effort of nature to relieve theoppressed organ -is the result, accompanied with difficulty of breathing, which towards night often becomes laboured and painful. Loss of ap. petite and slight thirst, as a consequence of febrile action, obtains equally in this disease ; and though sickness is by no means common, it may under certain conditions of body exist in the earlier stages of measles.
13. On the third day, after the second chain of symptoms have set in, an eruption of a reddish brown, irregular shaped spots makes its appearance, first on the face and neck or bosom, and spreading to the arms, legs, and body. When the disease is mild and favourable, the rash comes out freely, and though not entirely covering the body, is full and well defined where it does appear.
14. Measles is easily distinguished from all other eruptive diseases, by the spots being large, irregular in shape, of a dusky red colour, and conveying to the touch, when the fingers are passed over them, the sense of roughness or inequality on the skin.
15. Such are the general symptoms of an ordinary attack of measles, and the treatment of such a case resolves itself into little more than a judicious assistance of nature.
16. But complications and varieties occasionally occur, where the disease from
the commencement assumes a very different character ; in such conditions it is called
17. Malignant Measles.-This is a state that more frequently depends upon constitutional and hereditary conditions of the body of the patient than upon epidemic or atmospheric causes; and is from the first attended with typhoid symptoms. In malignant measles, all the ordinary characteristics are greatly exaggerated. There is from the beginning much more fever, and that of a low, or typhoid type, the debility is greater, and the disinclination to all exertion much more marked. The pains in the head are more severe, and the difficulty of breathing hard and oppressive. The eruption will appear for a few hours, and suddenly recede from the skin, and when it reappears show itself only in patches of a dark purple or blackish colour. At other times the eruption, though well out, will gradually change its hue, and passing from the natural reddish brown, become purple and finally black. The mouth, tongue, and lips are coated with a brown fur, and the pulse is quick, small, and sharp.
18. As in the simple, and most usual form of measles, the treatment is easy and safe; so in its malignant character, all the resources of art, and the practical wisdom of experience, are called for to arrest and conquer a disease that can only be mastered by excessive vigilance and unwearied skill and ability
19. THE OLD TINDER-BOX.-What an eloquent lecture might be delivered upon the old-fashioned tinder-box, illustrated by the one experiment of "striking a light." In that box lie, cold and motionless, the Flint and Steel, rude in form and crude in substance. And yet, within the breast of each, there lies a spark of that grand element which influences every atom of the universe ; a spark which could invoke the fierce agents of destruction to wrap their blasting flames around a stately forest, or a crowded city, and sweep it from the surface of the world; or which might kindle the genial blaze upon the homely hearth, and shed a radiant glow upon a group of smiling faces ; a spark such as that which rises with the curling smoke from the village black-
smith's forge-or that which leaps with terrific wrath from the troubled breast of a Vesuvius. And then the tinder-the cot-ton-the carbon: What a tale might be told of the cotton-field where it grew, of the black slave that plucked it, of the white toiler who spun it into a garment, and of the village beauty who wore it-until, faded and despised, it was cast among a heap of old rags, and finally found its way to the tinder-box. Then the Tinder might tell of its hopes; how, though now a blackened mass, soiling everything that touched it, it would soon be wedded to one of the great ministers of nature, and fly away with transparent wings, until, resting upon some Alpine tree, it would make its home among the green leaves, and for a while live in freshness and beauty, looking down upon the peaceful vale. Then the Steel might tell its story; how for centuries it lay in the deep caverns of the earth, until man, with his unquiet spirit, dug down to the dark depths and dragged it forth, saying, "No longer be at peace." Then would come tales of the fiery furnace, what Fire had done for Steel, and what Steel had done for Fire. And then the Flint might tell of the time when the weather-bound mariners, lighting their fires upon the Syrian shore, melted silicious stones into gems of glass, and thus led the way to the discovery of the transparent pane that gives a crystal inlet to the light of our homes ; of the mirror in whose face the lady contemplates her charms ; of the microscope and the telescope by which the invisible are brought to sight, and the distant drawn near ; of the prism by which Newton analysed the rays of light; and of the photographic camera, in which the sun prints with his own rays the pictures of his own adorning. And then both Flint and Steel might relate their adventures in the battle-field, whither they had gone together, and of fights they had seen, in which man struck down his fellewman, and like a fiend had revelled in his brother's blood. Thus, even from the cold hearts of flint and steel, man might learn a lesson which should make him blush at the "glory of war ;" and the proud, who despise the teachings of small things, might learn to appreciate the truths that are linked to the story of a "tinder-box."Reason Why.

## 388. VEGETABLE LIFE.

If we take some water, rising from a subterranean spring, and expose it to sunshine, we shall see, after a few days, a curious formation of bubbles, and the gradual accumulation of green matter. At first we cannot detect any marks of organi-sation-it appears a slimy cloud of an irregular and undetermined form. It slowly aggregates, and forms a sort of mat over the surface, which at the same time assumes a darker green colour. Careful examination will now show the original corpuscles involved in a net-work formed by slender threads, which are tubes of circulation, and may be traced from small points which we must regard as the compound atom, the vegetable unit. We must not forget, here, that we have to deal with four chemical elements-oxygen, hydrogen, carbon, and nitrogen, which composes the world of organised forms, and that the water affords us the two first as its constituents, gives us carbon in the form of carbonic acid dissolved in it, and that nitrogen is in the air surrounding it, and frequently mix with it also.

Under the influence of sunshine, we have now seen these elements uniting into a mysterious bond, and the result is the formation of a cellular tissue, which possesses many of the functions of the noblest specimens of vegetable growth. But let us examine the progress. The bare surface of a rock rises above the waters covered over with this green slime, a mere veil of delicate network, which, drying off, leaves no perceptible trace behind it; but the basis of a mighty growth is there, and under solar influence, in the process of time, other changes occur.

After a period, if we examine the rock, we shall find upon its face little coloured cups or lines with small hard dises. These, at first sight, would not be taken for plants, but on close examination they will be found to be lichens. These minute vegetables shed their seed and die, and from their own remains a more numerous crop springs into life. After a few of these changes, a sufficient depth of soil is formed, upon which mosses begin to develope themselves, and give to the stone a second time a faint tint of green, a mere film still, but ir:dicating
the presence of a beautiful class of plants, which, under the microscope, exhibit in their leaves and flowers many points of elegance. These mosses, like the lichens, decaying, increase the film of soil, and others of a larger growth supply their places, and run themselves the same round of growth and decay. By and-by, funguses of various kinds mingle their littleglobes and umbrellalike forms. Season after season plants perish and add to the soil, which is at the same time increased in depth by the disintegration of the rock over which it is laid, the cohesion of particles being broken up by the vegetable life. The minute seeds of the ferns floating on the breeze, now find a sufficient depth of earth for germination, and their beautiful fronds, eventually, wave in loveliness to the passing winds.

Vegetable forms of a higher and a higher order gradually succeed each other, each series perishing in due season, and giving tc the soil additional elements for the growth of plants of their own species or those of others. Flowering herbs find a genial home on the once bare rock; and the primrose pale, the purple fox glove, or the gaudy poppy, open their flowers to the joy of light. The shrub, with its hardy roots interlaced through thesoil, and binding the very stones, growsrich in its bright greenery. Eventually the tree springs from the soil, and where once the tempest beat on the bare cold rock, is now the lordly and branching monarch of the forest, with its thousand leaves, affording shelter for bird and beast,

Such are the conditions which prevail throughout nature in the progress of vegetable growth ; the green matter gathering on a pond, the mildew accumulating on a shaded wall, being the commencement of a process which is to end in the development of the giant trees of the forest, and the beautifully tinted flower of nature's most chosen spot.

We must now consider close'y the phenomena connected with the growth of an individual plant, which will illustrate the operation of physical influences throughout the vegetable world. The process by which the embryo, secured in the seed, is developed, is our first inquiry.

A seed is a highly carbonised body, consisting of integuments and embryo: between these, in most seeds, lies a substance
called the atbumen, or perisperm. The embryo contains the elements of the future plant-the cotyledons, the plumule, and the radicle; the former developing into stalk and leaves, the latter into roots. This embryo hides the living principle, for the deve lopment of which it is necessary that the starchand gluten undergo a chemical change, and that an elevation of temperature is produced. Thevital power is dormant-it sleeps -in the seed until the proper conditions are produced. It has been proved that the powers of maintaining life in the seed are very great; excessive cold, sufficiently intense to freeze mercury, will not kill seed, and they resist a comparatively high temperature. It is probable that heat only destroys seeds by drying them too completely. The temperature at which seeds germinate is exceedingly varied-those belonging to our own clime will germinate when the thermometer rises above 40 deg . F., but the seeds of tropical plants demand that a temperature of from 70 deg. to 84 deg., or even to 90 deg., be steadily applied to them. In some cases it has been found that even boiling the seeds has been advantageous to the future process of germination in the soil. But let us take the seed of some ordinary plant, and trace its progress.

An apparently dead grain is placed in the soil. If the temperature is a few degrees above the freezing point, and the soil holds a due quantity of water, the integument of the seed imbibes moisture, and swells; the tissue is softened, and the first effort of vital force begins. The seed has now the power of decomposing water, the oxygen combines with some of the carbon of the seed, and is expelled as carbonic acid. Saussure's experiments prove this. The air above the soil in which a horse-bean was placed to germinate, gave, before the experiment, nitrogen $210 \cdot 26$, and oxygen $56 \cdot 29$, and after germination, nitrogen $209 \cdot 41$, oxygen $44 \cdot 38$, and carbonic acid 11.27. This part of the process is but little removed from the merely chemical changes which we have already considered. We find the starch of the seed changed into gum and sugar, which affords nutritive food for the developing embryo. The seed now lengthens downwards by the radicle, and upwards by the cotyledons,
which, as they rise above the earth, acquire a green colour. Here the first stage of vegetable life ends, the chemically exciting process is at an end, and a new stimulus is required to continue in full activity the vital powers. Carbonic acid is no longer given off.
The cotyledons, which are two opposite roundish leaves, act as the lungs; by them carbonic acid taken from the atmosphere is absorbed and carried by a circulating process, now in full activity, through the young plant. The carbonic acid, a compound of carbon and oxygen, is decomposed; it is deprived of its carbon, which is retained by the plant, and oxygen is exhaled. The plant at this period is little more than an arrangement of cellular tissue, a very slight development of vascular and fibrous tissue appearing as a cylinder lying in the centre of the sheath. At this point, however, we begin more distinctly to trace the operations of the new power ; the impulses of life are strikingly evident.
The young root is now lengthening, and absorbing from the moisture in the soil, which always contains some soluble salts, a portion of its nutriment, which is impelled upwards by a force-probably capillary at. traction and endosmose action combinedto the point from which the plumule springs. Capillary force raises the fluids through the tubes in the stalk, and conveys them to the veins in the leaves, while the endosmose force diffuses them through the vegetable tissues. The plumule first ascends as a little twig, and, at the same time, by exerting a more energetic action on the carbonic acid than the cotyledons have done, the carbon retained by them being only so much as is necessary to form chlorophylle, or the green colouring matter of leaves, some wood is deposited in the centre of the radicle. From this time the process of lignification goes on through all the fabric -the increase, and indeed the life, of the plant, depending upon the development of a true leaf from the plumule.

It must not be imagined that the process consists, in the first place, of a mere oxidation of the carbon in the seed-a slow combustion by which the spark of life is to be kindled-the hydrogen of the water plays an important part, and, combining also with the carbon, forms necessary compounds, and

F a secondary process gives rise again to water by combination with oxygen in the cells of the germinating grain. Nor must we regard the second class of phenomena as mere mechanical processes for decomposing carbonic acid, but the result of the combined influences of all the physical powers and life superadded.
This elongating little twig, the plumule, at length unfolds itself, and the branch is metamorphosed into a leaf. The leaf aërates the sap it receives, effects the decomposition of the carbonic acid, the water, and in all probability the ammonia which it derives from the air, and thus returns to the pores, which communicate with the pneumatic arrangements of the plant, the necessary secretions for the formation of bark, wood, and the various proximate principles which it contains.

After the first formation of a leaf, others successively appear, all constructed alike, and performing similar functions. The leaf is the principal organ to the tree; and, indeed, Linnæus divined, and Goethe demonstrated, the beautiful fact, that the tree was developed from this curiously-formed organ.
"Keeping in view," says the poet-philosopher, "the observations that have been made, there will be no difficulty in discovering the leaf in the seed-vessel, notwithstanding the variable structure of that part and its peculiar combinations. Thus the pod is a leaf which is folded up and grown together at its edges, and the capsules consist of several leaves grown together, and the compound fruit is composed of several leaves united round a common centre, their sides being opened so as to form a communication between them, and their edges adhering together. This is obvious from capsules which, when ripe, split asunder, at which time each portion is a separate pod. It is also shown by different species of one genus, in which modifications exist of the principle on which their fruit is formed ; for instance, the capsule of nigilla orientalis consists of pods assembled round a centre, and partially united ; in nigilla damascena their union is complete."

Professor Lindley thus explains the same view:-"Every flower, with its peduncle and bracteolæ, being the development of a flower bud, and flower-buds being altogether
analogous to leaf-buds, it follows as a corollary that every flower, with its peduncle and bracteolæ, is a metamorphosed branch.
"And, further, the flowers being abortive branches, whatever the laws are of the arrangement of branches with respect to each other, the same will be the laws of the flowers with respect to each other.
" In consequence of a flower and its peduncle being a branch in a particular state, the rudimentary or metamorphosed leaves which constitute bracteæ, floral envelopes, and sexes, are subject exactly to the same laws of arrangement as regularly-formed leaves."

The idea that the leaf is the principal organ of the plant, and that from it all the other organs are probably developed, is worthy the genius of the great German poet.

Every leaf, a mystery in itself, is an individual gifted with peculiar powers ; they congregate in families, and each one ministers to the formation of the branch on which it hangs, and to the main trunk of the tree of which it is a member. The tree represents a world, every part exhibiting a mutual dependence.
" The one red leaf, the last of its clan, That dances as often as dance it can; Hanging so light and hanging so high, On the topmost twig that looks up at the sky," is influenced by, and influences, the lowest root which pierces the humid soil. Like whispering voices, the trembling leaves sing rejoicingly in the breeze and summer sunshine, and they tremble alike with agony when the equinoctial gale rends them from the parent stalk. The influences which pervade the whole, making up the sum of vital force, are disturbed by every movement throughout the system; a wound on a leaf is known to disturb the whole, and an injury inflicted on the trunk interferes with the processes which are the functions of every individual leaf.-Hunt's Poetry of Science.
389. FAULTS.-As there are some faults that have been termed faults on the right side, so there are some errors that might be denominated errors on the safe side. Thus, we seldom regret having been too mild, too cautious, or too humble; but we often repent having been too violent, too presipitate, or too proud.

## 390. VENTILATION.

Mr. Daris, in his "Popular Manual of the Art of Preserving Health," gives some excellent directions with regard to ventilation, which we recommend to our readers.
391. " Keeping it in recollection, that all rooms intended for the residence of human beings ought to have good dimensions, and that they can scarcely be built too lofty, the reasons for which rules are apparent from the details into which we bave entered, and, in particular, from the quantity of oxygen gas required for respiration during a given time; the ventilation of sitting-rooms may be effected by the admission of a proper quantity of fresh air by means of a circular vane placed in a pane of the window, or in any other convenient situation, so as to occasion no draught, and by the use of a common fire with an open flue. If the apartment be large, two such vanes, or more, should be situated in distant parts of the room. In estimating the amount of air to be admitted into any apartment, there can be no better guide than our feelings, for there is no other cause for limiting such admission than the disagreeable coolness it may produce. We cannot have too much fresh air, unless the change of air takes place with such rapidity as to carry off the heat of the body too quickly. Where this is the case, ventilation would become a serious evil, by inordinately cooling the body, and producing the various evil consequences of cold. These circumstances have their foundation in our northern clime. The atrium of the Roman houses, which was their most important apartment, had a large square opening to the outer air in its centre, such is the mildness of an Italian sky.
392. "The remarks made on the dimensions and loftiness of apartments are nowhere so applicable as to bed-rooms ; these ought always to be spacious; but, as if in defiance of all rules of hygiene, they are most frequently the smallest and lowest rooms in the house. They have to be oc. cupied for many hours at a time, and, in general, without the air in them undergoing any perceptible change; and there can be no doubt but the want of proper ventilation in bod-rooms, particularly in the dwellings of the lower classes, is an
abundant source of ill-health. The air of bed-rooms is subject to many causes of vitiation, and does not admit of a very rapid change during their occupation therefore, a large store of the pure atmosphere ought at all times to be contained in them. If of the proper dimensions, a vane, such as before mentioned, may be introduced into the window, or into the panel of the door, with advantage, and without producing any draught, such as it would be liable to occasion in a small room ; and the open chimney flue will allow a sufficient egress of air. Bed-rooms ought not to be crowded with furniture. Chests of drawers containing clothes are apt to have their contents injured from the great absorbency possessed by all manufactured stuffs; they greedily drink up the vapours that emanate from the human body, more especially during a state of repose. Bedsteads ought to be devoid of hangings; wherever they are used, they preclude that degree of ventilation which is alone consistent with health; when made of woollen, and drawn closely round the bed through the night, they become, in a short time, from their great power of absorbency, truly offensive to a nice sense of smell ; and, in fact, absorb all the vapours copiously given out by the human body during sleep, and form recipients in which they may be allowed to putrefy. These vapours when permitted to accumulate and putrefy, it should be recollected there are strong reasons for believing, are of a peculiarly pestilent character -a powerful argument for a frequent change of the bed-clothing itself, and for its free ventilation during the time that the bed is unoccupied; and if hangings must be retained, they ought to be made of thin materials that admit of being washed, or otherwise they ought never to be drawn close, but allowed, as mere ornaments, to hang at the corners of the bedstead. The common practice of closing up the bed on rising, and of making it up afresh in the afternoon, is also very reprehensible. By this means every impurity that is absorbed during the night is carefully defended from the detersive influence of the atmosphere, to be increased by every fresh use of the bed, until it becomes somewhat offensive. But where it is usual, as in some parts of the continent,
to throw the bed-clothes over the back of the chair soon after rising, and to open the door and windows freely, they are in a great measure deprived of the exhalations they have absorbed during the night, by the pure atmosphere, which is probably greedy of moisture. When the weather is damp, however, it is better to ventilate bed-rooms during the day-time, in the main, from the rest of the house, by setting the door wide open, as we thus avoid any excess of moisture. This method of free ventilation of bed-clothes will secure to many persons much more comfortable sleep. It is well known how readily the restlessness that is common during summer nights may be dissipated, and refreshing sleep procured, by walking about the room, and thoroughly ventilating the bed-clothes; in which case we may safely attribute the relief chiefly to the greater readiness with which the functions of the skin are carried on, under the change of circumstances derived from the dissipation of the vapours previously contained in the bed-clothes, and the admission of fresh air into the bed."

## 392. THINGS THROWN AWAY.

NATURE is self-supporting, and loses nothing. Her great workshop is ever reproducing new forms out of the old materials, or fac-similes of the old forms with their own everlasting properties. Nourishment may be carried away by rivers into the sea, and by rivulets into lakes; but in the sea, and in the lakes, that nourishment exists. Perhaps the fishes devour it, and restore it to the table in another form; and perhaps it is absorbed by the vegetative principle, and converted into sea-weeds, whilst part is deposited on the bottom of the ocean, or incorporated with the salt and incorruptible water. But thoroughly lost it never is, and never can be.
393. How to gather that which has been scattered is one of the problems for human wisdom to solve. Rude and ignorant men, in their primitive state of existence, are glad to get rid of the refuse of society; and rivers were, and still are, always desirable in the neighbourhood of large cities, for that special purpose. The Thames carries the refuse of London away, the Seine disposes of the refuse of Paris, and the Clyde of Glasgow, and a great blessing the re-
moval is esteemed; but that refuse is merely a portion of the great mass of nutritive matter which the world contains; and were not an equal portion of this matter collected from some other quarter, to supply the loss which the land has sustained by the sweeping of the river, the land would soon be entirely exhausted, and die of old age. Baron Liebig, the celebrated German chemist, supposes that in this manner the now desolate regions of the East, at one time so fertile and populous, have been turned into deserts, partly eaten up by the inhabitants, who did not understand the art of restoring exhausted soil, and partly washed out and deprived of their vegetable and animal matter by the huge rivers which inundate their plains. The Tigris and Euphrates must carry yearly into the sea a sufficient amount of nutritive matter for millions of human beings. Could that matter only be arrested in its progress, and converted into bread and wine, fruit and beef, mutton and wool, linen and cotton, then cities might flourish once more in the desert, where men are now digging for the relics of primitive civilisation, and discovering the symbols of luxury and ease beneath the barren sand and the sunburnt clay.
394. The arts of life, in a great measure, consist of the saving and judicious use of waste matter. Paper is merely the refuse linen, cotton, and tow of the rags of society, the left-off clothes of the rich and the poor. These rags are carefully collected, and after having served the inferior purpose of clothing the body, they are made instrumental in adorning the mind. They are translated from the temporal to the spiritual sphere; they are invested with holy orders, and made to administer consolation to the afflicted, and courage to the fearful.
395. Some years ago a London chemist conceived the idea of collecting all the soapsuds of the metropolis, and recovering the soap that had been used in washing; and couldhe only have organised a plan of collecting the suds, he would have succeeded. An idea similar to this has, within the last few years, been realised at Manchester, with the refuse of the factories. The invention has been patented, and an immense amount of waste tallow is thus recovered, which used
to be washed into the Irish Channel, instead of returning to the purlieus of civilisation, the wash-houses and bed-chambers, to wash the skins and the garments of the million. The Thames carries down many thousand tons of good soap and candles, which would be much more useful to society, and more grateful to the senses in that domestic form and character, than in those they now sustain in their voyage to the ocean. Some years ago a patent was taken out for a mode of recovering a large portion of this tallow; but it has not yet been carried into practical operation.
396. What has been done already shows what may be done, and what a vast amount of wealth is annually lost for want of means of collecting its scattered particles. The refuse of London alone-according to the estimate of Liebig, 31 bs . weight per day for each individual, on the average-is valued by some as high as $£ 13,000,000$ per annum ; and $£ 10,000,000$ sterling must, therefore, be regarded as a moderate calculation. Here is one-fifth part of the national revenue at once, nay, one-third of the interest of the national debt, which costs only $£ 30,000,000$ per annum.
397. But the refuse of the whole United Kingdom has, by the same authority, been estimatedat $£ 180,000,000$,say, $£ 150,000,000$ for a moderate calculation! Well, here is three times the amount of the national revenue, and enough to pay the whole principal of the national debt in five or six years! Here is a California! What is the use of going to the Diggings of the FarWest, or the Ophir Mountains of Australia, when such infinite, endless, exhaustless sources of wealth are to be found in (shall we write it in full ?) the Common Sewers?

## 398. COMPULSORY LABOUR.

In early times it was not uncommon for kings to force into their service labourers, as well in the meaner employments of life as in the higher departments of art.
399. Edward the Third, in his anxiety for the speedy completion of the painting in the chapel of his palace, issued a precept, dated 18th March, 1350, to Hugh de St. Alban, his chief painter, commanding him to impress all the painters in the counties of Middlesex, Kent, Surrey, Essex, and Sussex, to conduct them to Westminster, and to
keep them in his service so long as should be necessary ; and, apprehending that these would not be sufficient, a similar order was given for the impressment of all the painters in the counties of Lincoln, Northampton, Oxford, Warwick, Leicester, Cambridge, Huntingdon, and Norfolk.
400. There is other evidence to show that personal liberty was compromised by the attainment of great skill in any art which could minister to the royal taste or convenience; and talent, instead of leading to that distinction, independence and wealth, which are its due, conducted its possessor to grind in the prison-house. A Roll, dated the 6th of John, 27 th June, 1204, notifies to Robert de Vipont, that Thomas, the arrow-maker, had been committed by the King to the custody of Hugh de Nevill, Thomas de Sanford, and John Fitz Hugh, who had undertaken not to let him depart from court without the royal license, and engaged that he should make six arrows for the King's use every day, except Sunday.
401. That his works at Windsor Castle might not be retarded for want of hands, Edward the Third, in the twenty-fourth year of his reign, appointed John de Spoulee, master of the stone-hewers, with a power not only " to take and keep, as well within the liberties as without, as many masons and other artificers as were necessary, and to convey them to Windsor, but to arrest and imprison such as should disobey or refuse; with a command to all sheriffs, mayors, bailiffs, \&c., to assist him." These powers were fully acted upon at a later period, when some of the workmen, having left their employment, were thrown into Newgate; while the place of others, who had been carried of by a pestilence then raging in the castle, was supplied by impressment.
402. In the year 1386, we find a writ of Richard the Second, empowering one Nicholas Hoppewell to take as much glass as he could find, or might be needful, in the counties of Norfolk, Northampton, Leicester, and Lincoln, " as well within liberties as without, saving the fee of the Church," for the repair of the windows of the chapel founded at Stamford in honour of the King's mother, Joan, Princess of Wales. He had also authority to impress
as many glaziers as should be requisite for the work.
403. Mr. Peter Cunningham, in his 'Life of Inigo Jones," tells us that "the Crown, pinched in its expenditure, and ambitious of great undertakings, was often obliged to force men into employment. This I gather from the accounts of the Paymaster of the Works, which contain a yearly gratuity 'to the Knighte Marshall's man for his extraordinary attendaunce in apprehending of such persons as obstinately refuse to come into his Majesty's works. The gratuity was often eight and occasionally ten pounds."

## 404. has the moon an atmo. SPHERE ? - It has for a considerable time been considered a settled question among philosophers, that the moon has no atmos-

 phere. The fact relied upon to prove that the moon has no atmosphere is, thatupon the occultation of a star by the intervention of the moon, there is no refraction of light, which there would be if it passed through an atmosphere; and further, that no clouds or anything like vapour has been discovered about the moon, nor anything indicating the existence of either animal or vegetable life. Of laie, however, an astronomer at Rome, M. Decuppis, has devoted himself much to selenography, and has arrived at the conclusion, deduced from a great number of observations, that the moon has an atmosphere, though on a very moderate scale, it being only about a quarter of a mile in height, two hundred times less, probably, than the height of the earth's atmosphere, and of only the thirtieth part of its density ; and further, that there are mountains which rise six or seven miles above the atmosphere, and when the star disappears behind them, there is no refraction ; but if it disap. pears behind a valley or plain, over which there is an atmosphere, then some refraction, though very slight, is perceptible, and of course there is anatmosphere. Therearethose who believe that the shallow atmosphere of M . Decuppis may be one like that belonging to our planet in the course of formation. Many geologists entertain the opinion that there was a time when the atmosphere of this earth was chiefly composed of carbonic acid gas, and that races of animals lived in it, they having organsadapted for living in the same. The valleys of the moon may be filled with carbonic or sulphurous acid gas, as they are exceedingly deep, and the regions volcanic. If the nebular hypothesis is correct, the moon should have an atmosphere like that of our earth in proportion to its magnitude consequently no one who believes in that hypothesis can consistently say a word about the probability of a new atmosphere now forming in the moon. "If any person studies the question of the "Earth's Atmosphere," its peculiar nature, such as the gases of whici it is formed, their quality, weight, and mixture, and takes into consideration the law of gaseous absorption, and its relation and adaptability of man, he cannot but be convinced that it was made by the special act of a great, intelligent being.

## 405. THE TWO PREACHERS.

There are two preachers ever preaching, Filled with eloquence and power;
One is old, and locks of white, Skinny as an anchorite ;
And he preaches every hour, With a shrill fanatic voice And a bigot'sfiery scorn.
"BACKWARD! ye presumptuous nations;
Man to misery is born,
Born to drudge, and sweat, and suffer-
Born to labour and to pray;
BACKWARD! ye presumptuobs nations,
Back!-be humble and obey!"
"ONWARD!-there are ills to conquer; Daily wickedness is wrought,
Tyranny is swollen with pride, Bigotry is deified;
Ever intertwined with Thought, Vice and Misery rant and crawl-
Root them out, their day is passed:
Goodness is alone immortal;
Evil was not made to last;
ONW ARD ! all the Earth shall aid us
Ere our peaceful flag be furled,
And the preaching of this preacher
Stirs the pulses of the world."

## 406. PRACTICAL PHILOSOPHY.-

Southey says, in one of his letters-"I have told you of the Spaniard, who always put on his spectacles when he was about to eat cherries, that they may look bigger, and more tempting. In like manner, I make the most of my enjoyments; and, though I do not cast my cares away, I pack them in as little compass as I can, and carry them as conveniently as I can for myself, and never let them annoy others."
407. DON'T KEEP THE BOW ALWAYS BENT.-I have been employed these last few hours with John Elliot and other boys in trying how long we could keep up two cricket balls. Lord Minto caught us. He says he must send me on a commission to some very young monarch, for that I shall never have the gravity of an ambassador for a prince turned of twelve. He, however, added the well known and admirable story of Henry IV. of France, who, when caught on all fours carrying one of his children by the Spanish envoy, looked up and said, "Is your excellency married ?" "I am, and have a family," was the reply. "Well, then," said the monarch, "I am satisfied, and shall take another turn round the room," and off he galloped, with his son flogging and spurring him on his back. I have sometimes thought of breaking myself of what are termed boyish habits ; but reflection has satisfied me that it would be very foolish, and that I should esteem it a blessing that I can find amusement in everything, from tossing a cricketball to negotiating a treaty with the Emperor of China. Men who will give themselvesentirely to business, and despise (which is their term) trifles, are very able in their general conception of the great outlines of a plan, but they feel a want of knowledge which is only to be gained by mixing with all classes in the world, when they come to those lesser points upon which its successful execution may depend.-Kay's Life of Sir John Malcolm.
408. NUMBER OF STARS.-To our naked eye are displayed, it is believed, about 3,000 stars, down to the sixth magnitude; and of these only twenty are of the first, and seventy of the second, magnitude. Thus far the heavens were the same to the ancients as we are to ourselves. But within the last two centuries our telescopes have revealed to us countless millions of stars, more and more astonishingly numerous the further we are enabled to penetrate into space! Every increase, says Sir John Herschel, into the dimensions and power of instruments, which successive improvements in optical science have attained, has brought into view multitudes innumerable of objects invisible before; so that for anything that experience has hitherto taught us, the number of the stars may be really infinite,
in the only sense in which we can assign a meaning to the word. Those rendered visible, for instance, by the great powers of Lord Rosse's telescop, are at such an inconceivable distance, that their light, travelling at the rate of 200,000 , miles $a$ second, cannot arrive at our little planet in less time than fourteen thousand years! Of this I am assured by one of our greatest living astronomers. Fourteen thousand years of the history of the inhabitants of the systems, if inhabitants there be, had passed away during the time that a ray of their light was travelling to this tiny residence of curious little man! Consider for a moment, that that ray of light must have quitted its dazzling source eight thousand years before the creation of Adam!Samuel Warren, D.C.L.
409. DEPTH OF THE SEA.-Captain Sir James Ross, in his voyage to the South, made some enormous soundings at sea ; one of which, 900 miles west of St. Helena, extended to the depth of 5,000 fathoms, or 30,000 feet, or nearly $5 \frac{3}{1}$ miles ; the weight employed amounting to 450 lbs . Another, made in lat. 33 deg. 5 min ., and long. 9 deg. W., about 300 miles west of the Cape of Good Hope, occupied $49 \frac{1}{2}$ minutes, in which time 2,226 fathoms were sounded. These facts are thought to disprove the common opinion that soundings could not be obtained at very great depths. Captain Denham sounded in the South Atlantic, between Rio de Janeiro and the Cape of Good Hope, 7,706 fathoms, or nearly 7.7 geographical miles. Now, the highest summits of the Himalaya are little more than 28,000 feet. The sea-bottom has, therefore, depths greatly exceeding the elevation of the highest pinnacle above its surface. The mean depth of the sea is, according to Laplace, from four to five miles. If the existing waters were increased only by onefourth, it would drown the earth, with the exception of some high mountains.-Quarterly Review.
410. MEMORIAL LINES ON THE MONTHS, as made use of by the Society of Friends.
Days twenty-eight in second month appear,
And one day more is added each Leap-year;
The fourth, eleventh, ninth, and sixth month run
To thirty days; the rest to thirty-one.

## 411. THE MARRIAGE VOW.

Speak it not lightly !-'tis a holy thing,
A bond enduring through long distant years, When joy o'er thine abode is hovering,
Or when thine eye is wet with bitterest tears, Recorded by an angel's pen on high,
And must be question'd in eternity !
Speak it not lightly!-though the young and gay
Are thronging round thee now with tones of mirth,
Let not the holy promise of to-day
Fade like the clouds that with the morn have birth;
But ever bright and sacred may it be,
Stored in the treasure-cell of memory.
Life will not prove all sunshine-there wil come
Dark hours for all-O, will ye, when the night Of sorrow gathers thickly round your home,
Love as ye did in times when calm and bright Seem'd the sure path ye trod, untouch'd by care, And deem'd the future, like the present, fair?
Eyes that now beam with health may yet grow dim,
And cheeks of rose forget their early glow;
Laugour and pain assail each active limb,
And lay, perchance, some worshipp'd beauty low:
Then will ye gaze upon the alterd brow,
And love as fondly-faithfully as now?
Should Fortuue frown on your defenceless head,
Should storms o'ertake your bark on life's dark sea,
Fierce tempests rend the sail so gaily spread,
When Hope her syren strain sang joyously,
Will ye look up, though clouds your sky o'ercast,
And say, together we will bide the blast?
Age with its silv'ry locks comes creeping on,
And brings the tottering step and furrow'd cheek,
The eye from which each lustrous gleam hath gone,
And the pale lip, with accents low and weak; Will ye then think upon your life's gay prime, And, smiling, bid love triumph over time?
Speak it not lightly!-oh! beware, beware!
'Tis no vain promise, no unmeaning word; Lo! men and angels list the faith ye swear, And by the High and Holy One 'tis heard: 0 then kneel humbly at His altar now, And pray for strength to keep the marriage vow.

## 412. NAMES OF COUNTRIES AND

 PLACES.-The origin of many proper names are very clear and simple, especially of Hebrew, Greek, or Saxon derivation; as Adam, the first man; Pericles, the renowned ; Edward, a keeper; but some of them are often very obscure, the words from which they were originally derived having become obsolete, or entirely lost in the deep mist of by-gone ages. The Phœnicians; however, were the greatest com-mercial people of the ancient world, and most of our names of places are derived from that source-the names in their language always signifying something characteristic of the place which they designated. Thus Europe, which is of Phœnician derivation, signifies a country of white complexions-so named because the inhabitants there were of a fairer complexion than those of Asia and Africa. Asia signifies between, or in the middle; from the fact that geographers placed it between Europe and Africa. Africa means the land of corn, or ears; it was celebrated for its abundance of corn and all sorts of grain. Lydia signifies thirsty, or dry ; very characteristic of the country. Spain, a country of rabbits or conies; this country was once so infested with these animals, that Augustus was sued to destroy them. Italy is a country of pitch; and Calabria was so named for a similar reason. Gaul (modern France) signifies yellow-haired, as yellow hair characterised its first inhabitants. Caledonia is a woody region. Hibernia is utmost or last habitation; for beyond this, westward, the Phœnicians never extended their voyages. Britain was the country of tin, as there were great quantities of lead and tin found on the adjacent islands. The Greeks called it Albion-which signifies, in the Phœenician tongue, either white or high mountain -from the whiteness of its shores, or the high rocks on its western coast. Corsica signifies a woody place; Sardinia the footsteps of a man, which it resembles; Rhodes serpents or dragons, which it produced in abundance ; Sicily, the country of grapes; Scylla, the whirlpool, is destruction. Syracuse signifies bad savour, so called from the unwholesome marsh upon which it stood. Atna signifies furnace, or dark and rocky. And thus, from physical, geographical, or other circumstances, have most of the places of classical antiquity received their names.
413. VICE AND VIRTUE.-Those who have resources within themselves, who can dare to live alone, want friends the least, but, at the same time, best know how to prize them the most. But no company is far preferable to bad, because we are more apt to catch the vices of others than their virtues, as disease is far more contagious than health
414. LONDON FOG. - The general cause of fogs is the upper region of the atmosphere being colder than the lower, and thus checking the ascent of the aqueous vapour, and keeping it near the surface of the earth ; and in London and other great cities where coal is burnt, the vast quantity of fuliginous matter floating over such places mingles with the vapour, and thus wraps the town in murky gloom at noonday. Sometimes this extraordinary appearance is caused by a change of the wind which may be accounted for as follows:-The west wind carries the smoke of the city to the eastward in a long train, extending to the distance of twenty or thirty miles; as may be seen in a clear day by any person on an eminence five or six miles from the city, and looking across in the direction of the wind; say from Harrow-on-the-Hill, for instance. In this case, suppose the wind to change suddenly to the east, the great body of smoke will be brought back in an accumulated mass; and as this repasses the city, augmented by the clouds of smoke from every fire therein, it causes the murky darkness alluded to. By accurate observation of the height of the fog, relative with the higher edifices, whose elevation is known, it has been ascertained that the fogs of London never rise more than two hundred to two hundred and forty feet above the same level. Hence the air of the more elevated environs of the metropolis is celebrated for its pure and invigorating qualities; being placed above the fogs of the plain, and removed from smoky and contaminating atmosphere. The height of the Norwood hills, for example, is about 390 feet above the level of the sea at low water, and thus enjoys a pre-eminent salubrity.
415. IDLENESS.-Some one, in casting up his accounts, put down a very large sum per annum for his idleness. But there is another account more awful than that of our expenses, in which many will find that their idleness has mainly contributed to the balance against them. From its very inaction, idleness ultimately becomes the most active cause of evil; as a palsy is more to be dreaded than a fever. The Turks have a proverb, which says, that the devil tempts all other men, but that idle men tempt the devil.
416. THINK.-Thought engenders thought. Place one idea upon paperanother will follow it, and still another, until you have written a page. You cannot fathom your mind. There is a well of thought there which has no bottom. The more you draw from it the more clear and fruitful it will be. If you neglect to think yourself, and use other people's thoughtsgiving them utterance only, you will never know what you are capable of. At first your ideas may come out in lumps-homely and shapeless; but no matter, time and perseverance will arrange and refine them. Learn to think and you will learn to write --the more you think, the better you express your ideas.
417. EXPANDING THE CHEST. Those in easy circumstances, or those who pursue sedentary employment within doors, use their lungs but little, breathe but little air in the chest, and thus, independently of positions, contract a wretchedly small chest, and lay the foundation for the loss of health and beauty. All this can be obviated by a little attention to the manner of breathing. Recollect thelungs are like a bladder in their structure, and can stretch open to double their size with perfest safety, giving a noble chest and perfect immunity from consumption. The agent, and only agent required, is the common air we breathe, supposing, however, that no obstacle exists, external to the chest, such as lacing it tight with stays, or having the shoulders lie upon it. On rising from the bed in the morning, place yourself in an erect posture, your head throw back and your shoulders entirely off from the chest, then inhale all the air that can be got in ; then hold your breath and throw your arms off behind; hold your breath as long as possible. Repeat these long breaths as many times as you please. Done in a cold air, it is much better because the air is much denser, and will act much more powerfully in expanding the chest. Exercising the chest in this manner, it will enlarge the capacity and size of the lungs.
418. QUARRELS.-Two things, well considered, would prevent many quarrels; first, to have it well ascertained whether we are not disputing about terms rather than things; and, secondly, to examine whether that on which we differ is worth contending about.
419. VEAL, AND ALL ITS USES.Directions to chouse Veal.-The flesh of a bull-calf is firmer than that of a cow, but then it is seldom so white; the fillet of a cow-calf is generally preferred, on account of the udder; if the head is fresh, the eyes are plump, but if stale, they are sunk and wrinkled. If a shoulder is stale, the vein is not of a bright red; if there are any green or yellow spots in it it is very bad. The breast and neck to be good should be white and dry; if they are clammy, and look green or yellow at the upper end, they are stale. The loin is apt to taint under the kidney; if it is stale it will be soft and slimy. A leg should be firm and white; if it is limp and the flesh flabby, with green or yellow spots, it is not good.
420. DIFFERENT PIECES OF VEAL. -Fore Quarter.-The shoulder, neck, and breast; the throat, sweetbread, and the windpipe-sweetbread, which is the finest and belongs to the breast. Hind quarter : the loin and the leg, which contains the knuckle and fillet. The head, tongue, and pluck, which has the heart, liver, lights, nut, melt, kidneys, and skirt. The feet.
421. TO MAKE A WHITE OR VEAL STOCK.-Take all the veal bones you may have, together with chicken, fowls, turkeys, or any white meat, and put them in a stockpot; let them boil for ten or twelve hours; crusts of dry bread and egg shells, in fact the same as directed for the stock-pot, (No. 177,) with the exception that it must be all white meats. When boiled the time abovementioned strain it off, and let it stand until it is cold, then take the fat off the top, turn it into another dish, and scrape the sediment off, when, if done as directed, you will find it a perfectly clear jelly; this may be used as the ground work of all kinds of sauces for veal.
422. BOILED KNUCKLE OF VEAL. -Veal should be well boiled. A knuckle of gix pounds will take nearly two hours. The neck must be also well boiled in a good deal of water-if it is boiled in a cloth, it will be whiter-pour over it parsley and butter, and serve it with tongue, bacon, or pickled pork, or it may be stewed white. (See breast.)
423. ANOTHER WAY.-Boil it until it is tender, then take some veal stockgravy properly seasoned, thicken it with
butter rolled in flour, and a couple of eggs; put the veal in the dish, and pour the sauce over it.
424. TO ROAST VEAL will take a quarter-of-an-hour to a pound. Paper the fat of the loin and fillet; stuff the fillet and shoulder with the following ingredients-A quarter-of-a-pound of suet, chopped fine, parsley and sweet herbs, chopped, grated bread and lemon-peel, pepper, salt, nutmeg, and yolk of an egg; butter may supply the want of suet; roast the breast with the caul on till it is almost done, then take it off, flour it, and baste it ; veal requires to be more done than beef. For sauce, salad, pickles, potatoes, brocoli, cucumbers, raw or stewed, French beans, peas, cauliflower, celery, raw or stewed.
425. BREAST OF VEAL STEWED WHITE.-Cut a piece off each end; make a forcemeat as follows : boil the sweetbread, cut it very small, some grated bread, a little beef suet, two eggs, a little milk, some nutmeg, salt, and pepper ; mix it well together, and stuff the thin part of the breast with some of it, the rest make up into little balls and fry (see 293); skewer the skin close down, flour, and boil it in a cloth in milk and water; make some gravy of the ends that were cut off, with half a pint of oysters, the juice of a lemon, and a piece of butter rolled in flour; when the veal is done, put it in the dish; garnish with the balls, and pour the sauce over it.
426. STEWED NECK OF VEAL WITH CELERY.-Take the best end of the neck, put it into a stewpan with some boiling water, some salt, whole pepper, and cloves tied in a bit of muslin, an onion, a piece of lemonpeel; stew this till tender; take out spice and peel, put in a little milk and flour mixed, some celery ready boiled and cut into lengths; boil it up, then sorve.
427. BREAST OF VEAL STEWED AND PEAS OR ASPARAGUS.-Cut it into pieces about three inches in size, fry it nicely; mix a little flour with some beef broth, an onion, two or three cloves; stew this some time, strain it, add three pints or two quarts of peas, or some heads of asparagus cut like peas; put in the meat, let it stew gently ; add pepper and salt.
428. THE NORTHAMPTONSHIRE WAY TO HASH a KNUCKLE OF

VEAL.-Boil a knuckle of veal till it is tender, then take a little of the liquor it was boiled in, and put it into a stewpan, with a little milk, a blade of mace, one anchovy, a bit of lemon-peel; let these simmer till the anchovy is dissolved, then strain the liquor, and put in a little milk, with a bit of butter rolled in flour; cut the veal into thin slices, and let them stew together till the gravy is of a proper thickness, shake the pan round often; poach five or six eggs and boil some small slices of bacon, lay the eggs upon the bacon round the veal, and lay crisped parsley between (See 198).
429. A FILLET OF VEAL STEWED. -Stuff it, half bake it with a little water in the dish, then stew it with the liquor, some good stock-gravy and a little sherry, when done, thicken it with flour ; add catsup, chyan, a little salt, juice of lemon, boil it up and serve.
430. A FRICASEE VEAL.-Take some slices of cooked veal and put them into a stewpan with water, a bundle of sweet herbs, and a blade of mace, and let it stew till tender; then take out the herbs, add a little flour and butter boiled together, to thicken it a little, then add half-a-pint of milk, and the yolk of an egg beat very fine ; add some pickled mushroons, but some fresh mushroons should be put in first, if they are to be had; keep stirring it till it boils, and then add the juice of a lemon, stir it well to keep it from curdling ; then put it into your dish, and garnish it with lemon.
431. A HARRICO OF VEAL.-Take a neck or breast of veal (if the neck, cut the bone short) and half roast it ; then put it into a stewpan just covered with brown stock-gravy, and when nearly done, have ready a pint of boiled peas, cucumbers, pared, and two cabbage lettuces cut in quarters, stewed in brown gravy, with a few forcemeat balls ready fried (See 293); put them into the veal, and then let them just simmer ; when the veal is in the dish, pour the sauce and peas over it, and lay the lettuce and balls round it.
432. TO COOK COLD SLICES OF VEAL.-Take a piece of veal that has been roasted (but not over done), cut it into thin slices ; take from it the skin and gristles; put some butter over the fire with some
chopped onions; fry them a little, then shake some flour over them; shake the pan round, and put in some veal stockgravy, a bunch of sweet herbs, and some spice; then put in the veal with the yolk of two eggs; beat up with milk, a grated nutmeg, some parsley shred small, some lemon-peel grated, and a little juice ; stir it one way till it is thick, and smooth and put it in the dish.
433. A BREAST OF VEAL IN HODGE PODGE.-Cut the brisket of a breast of veal into little pieces, and every bone asunder; then flour it, and put half-apound of butter into a stewpan. When it is hot, throw it into the veal, fry it all over a light brown, and then have ready a tea. kettle of boiling water; pour it into the stewpan, fill it up, and stir it round; throw in a pint of green peas, a whole lettuce, washed clean, two or three blades of mace, a little whole pepper, tied in a muslin rag, a little bundle of sweet herbs, a small onion, stuck with a few cloves, and a little salt ; cover it close, and let it stew an hour ; or till it be boiled to your palate, if you would have soup made of it; but if you would have only sauce to eat with the veal, you must stew it till there be just as much as you would have for sauce, and season it with salt to your palate ; take out the onion, sweet herbs and spice, and pour it altogether into your dish; if you have no peas, pare three or four cucumbers, and scoop out the pulp, and cut into thin pieces; then take four or five heads of celery, washed clean, and cut the white part small; when you have no lettuces, take the little hearts of savoys, or the little young sprouts. If you would make a very fine dish of it, fill the inside of your lettuce with forcemeat and tie the top close with a thread, and stew it till there be just enough for the sauce ; set the lettuce in the middle and the veal round; pour the sauce all over it; garnish your dish with rasped bread, made into figures with your fingers.
434. TO COLLAR A BREAST OF VEAL. -Take a breast of veal, pick off all the fat meat from the bones; beat up the yolks of two eggs, and rub it over with a feather; take some crumbs of bread, a little grated nutmeg, some beaten mace, and a little pepper and salt, and a few sweet herbs, a little lemon-peel, cut small,
strewed over it; put a thick skewer into it to keep it together; roll it up tight, and bind it very close with twine; roll a veal caul over it, and roast it an hour and aquarter ; before it is taken up, take off the caul, sprinkle some salt over it, and baste it with butter ; let the fire be brisk, and the veal of a fine brown when it is taken up ; cut it into three or four slices, lay it in the dish; boil the sweetbread, cut it into slices, and lay round it; pour over it white sauce, which must be made as follows:-A pint of good veal gravy, half an anchory, a tea-spoonful of mushroom powder; let it boil up, then put in half-apint of milk, and the yolk of two eggs well beat ; just stir it over the fire, but do not let it boil, or the milk will curdle; put in some pickled mushrooms just before it is sent to table.
435. A FAVOURITE WAY TO SERVE A LOIN OF VEAL.-Having roasted a fine loin of veal, take it up, and carefully take the skin off the back part of it without breaking ; cut out all the lean meat, but mind and leave the end whole, to hold the following mince-meat:-Mince all the meat very fine, with the kidney part put it into a little veal gravy, enough to moisten it, with the gravy that comes from the loin; put in a little pepper and salt, some lemon-peel shred fine, the yolk of three eggs, a spoonful of catsup, and thicken it with a little butter rolled in flour; give it a shake or two over the flre, and put it into the loin, then pull the skin over it. If the skin should not cover it, make it brown with a hot iron, or put it into an oven for a quarter-of-an-hour. Send it up hot, and garnish with lemon.
436. VEAL DRESSED WITH RICE. -Take a pound of rice; put it to a quart of veal broth, some mace, and a little salt; stew it over a very slow fire till it is thick, but at the bottom of the stew pan, beat up the yolk of six eggs, and stir it into it; then take a dish, butter it, lay some of the rice at the bottom, and put upon it a neck or breast of veal, half roast it, cut into five or six pieces; lay the veal close together, in the middle, and cover it over with rice; wash the rice over with the yolk of eggs, and bake it an hour and a half; then open the top, and pour into it
some good thick gravy; squeeze in the juice of an orange.
437. VEAL COLLOPS.-Cut them about five inches long, not so broad, and not too thin; rub them with eggs, and strew over them some crumbs of grated bread, parsley chopped, grated lemon-peel, pepper, salt, and nutmeg, with a few leaves of thyme shred small, set them before the fire in a Dutch oven ; baste them, and when nicely brown turn them; thicken some rich gravy with some flour, add catsup, Cayenne, mushrooms, and hard yolks of eggs ; boil this up, and pour it over them.
438. VEAL CUTLETS.-Take some large cutlets from the fillet; beat them flat; strew over them some pepper, salt, crumbs of bread, and shred parsley; then make a thick sauce of veal sweetbreads and mushrooms, chopped small; fry the cutlets in butter of a fine brown; then lay them in a hot dish, and pour the sauce boiling hot over them.
439. VEAL OLIVES.-Cut them thin from the fillet (if it is large, one slice will make three); rub over them some yolk of egg; strew on them some bread crumbs mixed with parsley, and parsley chopped, lemon-peel grated, pepper, salt, also nutmeg ; lay on every piece a thin slice of bacon, not too fat; roll them up tight; skewer them with small skewers; rub the outside with egg, roll them in bread crumbs, \&c. ; lay them in a Dutch oven; let them do without burning; they take a good deal of time, as they are thick. Pour the following sauce on the dish:-Take a pint of good gravy, thicken it with flour ; add catsup, cayenne, pickled mushrooms, boil this up a few minutes. Forcemeat balls may be added.
440. FRIED VEAL WITH LEMON.Cut some slices of veal, the breadth of three fingers, and twice that length, and the thickness of a crownpiece; make a seasoning of sweet herbs, some grated bread, pepper, salt, and a little nutmeg; beat up the yolks of two eggs (without the whites); set on a frying-pan with a piece of butter, when it is boiling hot dip the veal in the egg and then in the seasoning; cover them with it very thick; throw them into the pan and brown them; pour the fat out of the pan, put in some stock-gravy, squeeze in
some lemon, shake it round the pan till it is boiling hot, and then pour it over the veal ; if it is not thick enough, mix a little flour and gravy in a bason, and then pour it into that in the frying-pan, let it boil and serve it up.
441. TO HASH VEAL. - Do it as the cold calf's head; or when sliced, flour it, put it into a little gravy, with grated lemonpeel, pepper, salt, catsup, boil it up, add a little juice of lemon; serve round it toasted sippets.
442. TO MINCE VEAL.-Cut the veal very fine, but do not chop it; take a little white gravy or water, but gravy is better ; a little milk, a bit of butter rolled in flour, and grated lemon-peel; let these boil till like a fine thick cream; flour the veal, shake a little salt, and some white pepper over it ; put it into the saucepan to the other ingredients and let it be quite hot; it must not boil after the veal is in, or it will be hard, before it is taken up. If it is agreeable put sippets under it.
443. TO POT VEAL.-Take a part of a knuckle or fillet of veal, that has been stewed, or bake it on purpose for potting; beat it to a paste, with butter, salt, white pepper, and mace, pounded; press it down in pots, and pour over it clarified butter.
444. VEAL HAM.-Take a leg of veal, cut ham-fashion, two ounces of saltpetre, one pound of bay, and one of common salt, and one ounce of juniper berries bruised; rub it well into the veal; lay the skinny side downwards at first, but let it be well rubbed and turned every day for a fortnight, and then let it be hung in wood smoke for a fortnight. It may be boiled or parboiled and roasted.

## 445. TO FRY SWEETBREADS.-Cut

 them in long slices, beat up the yolk of an egg, and rub it over them with a feather; make a seasoning of pepper, salt, and grated bread; dip them into it, and fry them in butter. For sauce-catsup and butter, with stock-gravy or lemon sauce; garnish with small slices of toasted bacon and crisped parsley.446. TO DRESS A CALVES' PLUCK. - Boil the lights and part of the liver; roast the heart, stuffed with suet, sweet herbs and a little parsley all chopped small, a few crumbs of bread some pepper, salt,
nutmeg, and a little lemon-peel; mix it up with the yolk of an egg.
447. CALVES' LIVER AND BACON.Cut it in slices, and fry it in good beef dripping or butter; let the pan be half full, and put the liver in when it boils, which is when it has dore hissing; have some rashers of toasted bacon and lay round it, with some parsley crisped before the fire: always lay the bacon in boiling water before it is either boiled, fried, or toasted, as it takes out the salt and makes it tender. Sauce made thus:-A pint of veal stock, a little catsup, some pepper and salt, a bit of butter, and a little flour to thicken; a little poured over the liver, the rest in a sauce-boat.
448. CALVES' CHITTERLINGS. Clean some of the largest of the calves' guts, cut into lengths proper for puddings; tie one of the ends close ; take some bacon, and cut it like dice, and a calf's udder, and fat that comes off the chitterlings; put them into a stewpan, with a bay leaf, salt, pepper, a eschalot cut small, some mace, and Jamaica pepper, with half-a-pint or more of milk, and let it just simmer; then take off the pan, and thicken it with four or five yolks of eggs, and some crumbs of bread; fill the chitterlings with this mixture, which which must be kept warm, and make the links like hog's puddings; before they are sent to table, they must be boiled over a moderate fire; let them cool in their own liquor. They serve in the summer when hog's puddings are not to be had.
449. TO STEW CALVES' FEET. Take a calf's foot, divide it into four pieces, put it to stew with half-a-pint of water; pare a potato, take a middling onion peeled and sliced thin, some pepper, and salt; put these ingredients to the calves' foot, and let them simmer very softly for two hours. It is very good.
450. TO MAKE CALVES' FEET JELLY. - Boil either two or four calves' feet, according to the quantity that is wanted, with isinglass, to make it a stiff jelly ; one ounce of picked isinglass to two feet is about sufficient, if the isinglass is very good; boil with these a piece of lemon-peel, a bunch of sweet herbs, some pepper corns, a few cloves, a bit of mace, nutmeg, and a bit of salt; when the jelly is done strain it; put to it juice of lemon, and sherry to the taste;
boil it up, pulp it through a bag till fine; the white of an egg may be added before it is boiled.
451. THINGS IN SEASON IN MAY. -Meat.-Lamb, Beef, Mutton, Veal.

Poultry.-Green Geese, Ducklings, Leverets, Rabbits, Pullets, Fowls, Chicken.

Fish.-Turbot, Carp, Tench, Trout, Salmon, Soles, Smelts, Herrings, Eels, Crabs, Prawn.

Vegetables.-Cabbages, Potatoes, Carrots, Turnips, Cauliflower, Artichokes, Radishes, Spinach, Parsley, Mint, Fennel, Lettuce, All Sorts of Salad, All Sorts of Herbs, Peas, Beans, Asparagus, Cucumbers.

Fruit.-Apples, Pears, Cherries, Strawberries, Currants for Tarts.
452. CARBON.-There are few facts connected with carbon that merit consideration. Carbonic acid gas, entering the lungs, is a deadly poison; but entering the stomach, which lies close under the lungs, and is overlapped by them, it is a refreshing beverage. Although charcoal, when burnt, gives off the most poisonous gas, it seems to be very jealous of other gaseous poisons; for if it be powdered and set about in pans where there is a poisonous atmosphere, it will seize hold of poisonous gases, and, by absorbing, imprison them. Even in a drop of toast and water, the charred bread seizes hold of whatever impurities exist in the water; and water passes through beds of charcoal, becomes filtered and made beautifully pure, being compelled to give up to the charcoal what ever is obnoxious. If a piece of meat that has already commenced putrifying, be sprinkled with charcoal, it will not only object to the meat putrifying any further, but it will sweeten that which has already undergone putrefaction. Although, in the form of gas, it will poison the blood, and cause speedy stupefaction and death; if it be powdered, and stitched into a piece of silk, and worn before the mouth as a respirator, it will say to all poisonous gases that come to the mouth with the air, "I have taken this post to defend the lungs, and I arrest you, on a charge of murderous intention." Such are the various facts connected with carbon ; and they forcibly indicate that those who understand Nature's works, are likely to receiveher best protection.-The Reason Why.

## 453. MAY FOR THE GIRLS AND BOYS.

May is the lovliest of the whole twelve months, because then, the year being still young, the air mild, equally free from the chills of winter and the heats of summer, and the fields and gardens clad in their freshest hues, the birds sing gayest, the breezes bring their most fragrant odours, and all nature wears its most engaging aspect. What shall be set down as the best sports for this month? Assuredly good, but not excessive, exercise in the open air will be the best. Let us then proceed to give a few directions for the practice of
454. Gymnastics.-The bestage to begin the practice of gymnastic exercises is about eight years. They should be very gentle at first, and only such as are suited to that age. They should be practised before, not after meals, and the boys and girls must be very careful after the exercises not to lie upon the damp ground, nor to stand in a draught, or to drink cold water; for the want of such precautions many serious consequences are liable to ensue.
455. Walking is the best and easiest of all gymnastic exercises. It is the most natural to us; it promotes health and rouses the spirits. "Oh," perhaps some boy or girl will say, "walking is easy, enough to be done, but it is not sport.", But to walk well is not so easy. Some persons hobble along, others shuffle, others scramble, others rush, crawl, or drag themselves along. These do not walk in our sense of the word. To walk well, the head should be erect, not hanging down, or projected forward, or sunk beneath the shoulders; an easy and uniform pace should also be adopted. To acquire a good walk one of your party, who is competent, should be named captain. The rest are then to be ranged in a line before him for a little preliminary exercise. At the command "Fall in," from the captain, the boys place themselves at a distance of an arm's length from each other, toeing an imaginary or a marked line. At the word " Dress," each player places his right hand on the left shoulder of the next, extending his arm at full length and leaning his head to the right. When the captain calls "Attention," the arms are let fall down by the side, and the head returns to its original position. The captain
then standing before his men sets them a good example, while he calls out in turn :1. Heads up-2. Shoulders back-3. Body erect-4. Stomach in-5. Knees straight6. Toes out. He then gives the word to "March," and counts one, two, three, as he steps forward. In marching, the leg must be kept straight, the knee bent as little as possible, the toe touching the ground much sooner than the heel, and each step must be of the same length. At the word "Halt," all must stop promptly. The captain then makes his troop march again, wheel to the right, to the left, in slow and quick time, without suffering any irregularity of pace or acceleration of speed except according to order.
456. Running is very good, but not more easy to do well than walking. In running well, the feet are not to be raised too far from the ground; the knees are to be bent as little as possible, the upper part of the body is bent slightly forward, and the arms kept as closely as possible to the sides. Young runners should neither go too far, nor too fast. Observing the above directions, they should take certain short distances, to be done in a certain time. Where it is possible, a leader, or fugle-man, who understands the method well, should be named and imitated. Practice works wonders. After a time, a boy will run a mile in ten minutes, and that, without losing his breath, or feeling very tired; but young runners should not attempt at first more then 200 or 250 yards, increasing the measure as they acquire strength and practice. The two preceeding exercises are principally for boys, but there is no reason why girls should not practice them ; the next two are exclusively for boys.
457. Jumping is a thing which, to do safely and well, requires both skill and practice. Besides, you do not know to how many uses your knowledge of how to jump well may be required to be applied. To jump well and safely, observe the following rules : -1 . Alwass endeavour to fall on the toes, not upon the flat of the foot. 2. Bend the knees backwards, the hips including, the rest of the body forward, and extending the arms towards the ground, so that the hands may serve to break a fall. 3. Hold the breath by closing the mouth. 4. Avoid, above all things, coming down
upon the heels. 5. Commence with short distances and low heights-at first, half a yard, then more. In jumping down, first jump one stair, then two, then three, and so on. By steady and graduated exercise a boy may in time jump from a height of six feet easily, and along a space equal to nine.
458. Leaping.-Leaping is not quite the same as jumping. In practising, observe the following hints:-The breath should be held; the hands kept shut ; the arms swinging, pendulum fashion, as though you were sawing your way through the air. Your leaps must be practised first over a low stool, or string suspended between two points. These must be raised in size and height by degrees.
459. The high leap without a run is thus managed:-Place your feet together, bend your legs, and extend your arms in the direction of the leap, then spring forward.
460. The high leap with a run. - In this, the feet, at the moment of leaping after the run, are not held together; the spring should be from the right foot. The run must not be unequally long; for a lowish leap not more than six or eight paces. The point of springing should be distant from the object to be cleared, about three-fourths of its height.
461. The long leap without a run.-At first, confine yourself to lengths of three and four feet; the arms are extended forward, the body bent, the hands clenched, and the feet together. Afterwards you may attempt longer leaps.
462. Vaulting consists in springing over such matters as a stile, a bar, or a low wall, by the assistance of the hands placed upon it. Take a short run; place your hands upon the object to be vaulted over; hold your legs out strait, keep them together, and fling them over in an oblique direction. This practice is really not so hard as it may seem, and a clever boy will show you how to do it much better than I can describe it.
463. Vaulting with a pole is first-rate exercise. Get a good pole shod with an iron end to strengthen it. The pole might be of about the thickness of a clothes-prop. At first, practice over small ruts and dry ditches; then aspire to more profound affairs. Let the right hand grasp the pole at about the level of the face; the left
holds it two or three feet lower down; make a short run; place the pole in a firm spot, and swing the body forward with a semicircular movement. When your feet alight, you will nearly face the side from which you sprung.
464. Holding at Arm's Length. Many boys pique themselves upon their skill in this accomplishment. It is generally done with the right arm and hand, but we see no reason why the left (since development of the muscles is one of the main objects of the exercise) should not be used. Procure any pole (the poker, or tongs, or the spit will do), grasp it firmly with your hand, the knuckles downwards, and hold it at arm's length. The thing is to keep it there for a length of time without letting it deviate from the horizontal line.
465. Climbing the Rope.-A good strong rope is, firmly fastened to a horizontal beam or the branch of a tree, eight or ten feet from the ground. It is then grasped with both hands, and the body drawn up as you shift one hand to a higher place over the other. In descending do not let the rope slide through yonr hands, or you will blister them; but shift them with rapidity.
466. Climbing the Pole.-In the absence of a more regular object, fasten the upper end of a clothes prop to the branch of a tree, taking care that the lower end is firmly planted in the earth. The ascent is chiefly made by the legs grasping the sides of the prop, the hands of course assisting. In coming down again your hands are scarcely necessary at all, as your own weight and the grasp of your legs will suffice. The preceding games are mainly for boys. We shall subjoin a few, of a kindred character, but more suitable for girls.
167. The Cabinet Makers.-A New GAME.-One is selected as captain or overlooker, the rest place themselves about the apartment or garden, with a chair or bench in front of each. The captain then says, "Let us saw some rosewood," and commences imitating, by the action of her arms, the motions of a sawyer; the rest imitate her. This is very diverting, and gives development to the muscular action. Having sawed long enough, the next order is, "Carry in the planks." All then march round the room or garden with both hands brought to
the right shoulder, as in the act of carrying a plank. At the word "Halt," the planks are supposed to be deposited on the benches or chair, and the captain next gives the order to "Plane." The action of planing is then simulated by a horizontal motion of both arms along the nearest smooth surface, or in the air. The work of the "handsaw" is then done, and much fun may be infused into this portion of the game by moving in an imitation of the creaking nolse of a handsaw, accompanying the action. The next command is to "put together," and the leader sets the example by hammering with the fist. This is followed by " Polish," and the game is concluded by "Take home the cabinet," when the company march round as before.
468. Do as I Do.-This is sometimes called the German exercise. The company is seated in a row or semicircle, and, as before, one is selected as leader. When all are ready the captain stands in front and calls "Attention." "Do as I do." Every eye must be rivetted upon the leader, whose actions, whether of eye, hand, or whole body must be exactly imitated. The leader then does something odd or unexpected; such as sneezing, wagging the head, gaping, beating time, or whatever suggests itself. The rest do the same simultaneously, and the effect is very comical if the leader is ingenious and the players good mimics. After a time the leader says, "Present arms," each then stretches out the right arm towards the captain. The next command is "Fire." The captain, at this word, gives the player nearest her a push, sufficient to upset, without hurting her, and each player pushes her neighbour, until all are thrown down side-ways upon the grass or carpet.
469. Stir the Batter.-If seven players are obtainable, place six chairs around the room and remove the next-all being seated, except one whom we will call Fanny. She stands in the centre with a stick in her hand, and affects to stir the carpet, saying "Stir the Batter; keep it stirred." After stirring for a few moments, all of a sudden she taps the floor thrice and throws down the stick. At this signal, the six players who are seated have to jump up and exchange chairs. While doing this it is Fanny's cue to reach one of the chairs before it is re-occupied. If she succeeds-
the one left without a seat has to "Stir the Batter." Failing, she has to do so once more, in the hope of better fortune next time.
470. Hot Boiled Beans and Butter. -Anything, such as a key, a ball, or piece of ribbon, may be selected and called "Hot boiled Beans and Butter;" this is deposited in the hands of the one who begins the game; the rest leave the room, or hide their faces; the first player then conceals the dainty in such a way that the acutest intellect could scarely guess in what direction to look for it. The game now is for the other players to find it. They are summoned to the feast with the call of "Hot boiled Beans and Butter"-but are first to discover where they are hidden. As the thing hidden is approached by the searchers the hider calls out to encourage them, "Hot! hot! very hot!" As they stray from the right spot he calls "Cold! cold! you freeze!" When the thing is found, the finder becomes the possessor, and has next to hide it.

## 471. THE LOVER'S WISHES.

(From the French of the Chevalier de Chatelain.)
I would I were the clouds above, That screens thee from the noontide ray; 1 would I were thine image, love, To smile on thee at dawn of day!
I would I were the flow'ret blue.
That waves amid thine ebon hair-
Or eke the glass, when thou dost view,
Within its depths, thy features fair !
I would-when slumbers wait on thee, And sweet each sense in rest enfold-
Thy guardian angel I might be,
Who hovers round on wings of gold!
I would I were a dream, that leaves
No bitter thoughts thy peace to mar-
A dream so sweetly that deceives,
Than duller truth, 'tis better far!
I would I were a gentle dove,
Glad tidings who to thee might bear;
To fan thee with the wings of love, And nestle in thy flowing hair!'
I would I were the radiant spark Those eyes emit when day doth flee-
Nay; I would be thy shadow dark So I might ever follow thee!
I would I were each thing that meets Thine eyes, where'er they rove by chance-
Each passing wish-each flower, whose sweets, However humble, draw thy glance!
I would I were the lyre, whose chord Thine ear with rapt'rous thrills could bless;
I would, in short-in one sweet word-
I would that I were -happiness!

## 472. THE FLOWER OF THE SEA COAST.

A young, cottage maiden, and a jouth stood on the shore of the bay at Castletown, Isle of Man. They were watching the glorious sunset-at least one was, for the girl kept her eyes steadily fixed on the departing ball of light, while the young man vainly endeavoured to conceal his impatience, by making marks upon the yieiding sand.

Susan Cretney, for so we must name the heroine, was very young, scarcely more than eighteen, she lived alone with her aged and infirm grandmother (both her parents had long been dead), and earned a scanty and precarious living, by taking in plain work. She had won the affections of a young carpenter, Joseph Shimmin, but they were too poor to marry just then, and Joseph was going to Liverpool, where he had a better chance of succeeding, to try and obtain some permanent situation.

We cannot do better than describe the fair flower of that rugged and solitary district, as she then stood. She was tall, and the loose jacket, which all Manx women wear, was confined at the waist by a leather girdle, and did not obscure the beauty of a graceful figure. The skirt of her dress was short, and displayed a beautiful little foot and ankle, of which many a high-born lady would have been proud, were she the possessor ; but the neatness of her appearance did not proceed from motives of coquetry ! Oh, no ! Susan Cretney, reared in that desolate place, with scarce a companion save her aged grandmother, scarcely knew that she was beautiful-I say scarcely, because in every woman's mind there is a certain indefinite little something, which speedily makes them aware of the fact, when they are the possessors of that charm, so fatal to manybeauty! As the sun finally disappeared beneath a cloud of purple and molten gold, Susan turned to her companion, and extending her hand to him, while she averted her face, said hurriedly and in a forced voice of composure,

> "You must go now, Joe; it is very late."

The young carpenter retained the hand she had put in his, and with his arms round
her, looked tenderly into her face, and then said sadly,
"Must I go? this is my last evening, and you have hardly said a word to me!"

The tears rushed into the eyes of the young girl, but she resolutely kept them back, and said firmly, "I have been praying for you, Joe, which is better than talking. I know," she continued, after a moment's hesitation, "that you will have many temptations to do what is wrong, and I do pray that you may be able to resist them, remember we should 'resist until death, striving against $\sin$;' and Joe, I should be so much happier if you would promise me to pray yourself every morning and evening, will you?"
"Yes, Susan, I promise," said the voung man, kissing her almost reverently, as if he fancied that his better angel stood beside him to warn him from danger, and Susan's heart bounded with thankfulness. She knew not that the promise was lightly made, and would be as lightly fulfilled. Joseph took a box from his pocket, and gave it to her, saying:
"Think of me, when you wear them, dear Susan."

She opened the box, it contained a pair of those imitation jet bracelets, with which the humble class of servants and the poor are so fond of adorning themselves. Susan looked rather grave as she observed,
"Thank you, Joe, I am very much obliged to you, though I could have remembered you quite well without the help of a present."
"Do you not like them," asked Shimmin, considerably disappointed, and Susan replied steadily,
"If you really ask me, I would rather you had not given me these. Ornaments do not befit one in my station of life, but," she added smiling, "though I cannot wear your present, dear Joe, I will keep them most carefully, and often look at them for your sake. It is growing very late, and I must go, but before I say good-bye, take this," and as she spoke she put a small, neatly bound Bible into his hand, " and promise me that you will read this blessed book every day, if it is only one text."
"I will promise you, dearest Susan !" exclaimed Joe, suddenly folding her in his
arms, "and thank you very much, I will think of you every time I read it."
"No, no, not of me" she whispered with a grave smile, " but of the words you read. And now, good-bye. I shall not see you again for a year, unless it be God's will, that you should be successful, and return earlier, good-bye, good-bye, and God bless you, dear Joe!"

A few whispered words, and tears, and a last, long embrace, were over, and Sisan, breaking from her lover, sprung up the steep cliff in an instant, and in a few moments more was in the little cottage, attending to the wants of the aged grandmother, and apparently as calm as if nothing had occurred.

In the meanwhile, Jue Shimmin was standing almost in the same position as that in which she had left him, and when he at length moved, and began his walk home, he drew his rough land across his eyes, as if to check the momentary and pardonable weakness, which caused a tear to bedew them. An hour afterwards he was on board a small sailing vessel, the owner of which, being one of his friends, had promised to take him to Liverpool (for which place the vessel was bound), free of expense. It was a lovely night, the moon was at the full, the stars were shinir.g brilliantly in the blue vault of heaven, and the pure moonlight cast its silver beams on the clear waters of the bay. As Joe stood leaning over the side of the vessel, his eye was naturally directed to that part of the coast on which stood the cottage of his beloved. It was nearly dark, and at that distance all was enveloped in gloom, but as he was about to turn away with a sigh of disappointment the feeble twinkle of a candle, showed him the position of that lonely hovel, in which faith, love, and hope had, however, made their abode. He continued watching that light till it faded from his eyes in the distance, and then taking from his pocket the Bible that Susan had given him, he began to turn over its pages, and as he did so he remembered the words she had spoken, which now sounded like a warning in his ear; "I know that you will have many temptations to do what is wrong," what could she mean, thought he, and his eyes fell suddenly on the passage, "Watch and pray, lest ye enter into temptation, the
spirit indeed is willing, but the fiesh is weak." He was startled, the Manx are all superstitious, and to his excited imagination, the answer he had just received to his question seemed little less than supenatural, and who shall dare to ascribe the turning over those Bible leaves to chance alone, and not to the intervention of a merciful God ?

And what was Susan doing on that night, so fraught to ber with sweet and yet painful emotions? She was sitting at the table, working busily, as was her wont, by the light of a candle, and her grandmother was sitting in the large arm-chair (as venerable as herself), and was listening to her grand-daughter, who was repeating from memory, whole chapters of the Bible, in a sweet and feeling voice. It was the only thing in which her grandmother's failing faculties could participate, and in which, indeed, she took delight. At last, Susan finished her work, and taking up the candle, gave her arm to the old woman, and supported her, as well as she could, upstairs to her bed-room. After seeing her safely in bed, Susan put out the candle, and proceeded to undress herself by the light of the moon. Long she knelt in prayer, and the tears she had so long resisted, now found full vent. Long, and fervently did the poor girl pray for her absent lover, and she reproached herself for doubting that all would go on well. As she remembered Joe's parting words and promises - "And yet, " she murmured, as she rose from her knees, and, opening the small casement, looked out upon the night, "it seemed quite natural to doubt, for if his resolutions are made in his own strength, how can they stand ?" Ah! how, indeed? Time will show how true, how sadly true, were her prognostications.

When Joe Shimmin arrived in Liverpool, he soon found plenty of employment. He was a sharp, active young fellow, thoroughly acquainted with his trade, andsoon procured asituationas carpenterone of the dock-yards. He was at first naturally downcast at leaving his native place, and the poor girl who loved him so truly ; and very frequently a feeling of home-sickness would come, and completely unnerve the young man. Of his first promise to Susan, that of prayer, every night and morning, he never gave it
a thought; indeed he had quite forgotten it. Prayer was not a privilege or a pleasure to him; he could not have understood the feeling which prompts many when they seek comfort, or aid to seek it in prayer. He had as yet lived a strictly moral life, and he tried to persuade himself (for he had too much good sense not to know the contrary) that that was all that was required of him. With regard to his second promise, that of reading the Bible morning and evening, at first he was very regular in doing so, and after he had performed his task he felt a proud self-satisfied consciousness that he had been doing right, and that it was very praiseworthy of him. He knew not that such thoughts were prompted by the devil.

Among the friends he speedily acquired at Liverpool was a young man named Robert Blythe. He was extremely good natured and had done Joe many kind turns, and Shimmin and he became great cronies. One day, Joe met Robert as he was returning from work, and after talking for some time, Robert observed, that the price of a separate lodging was more than he could afford, aud that he should be obliged to find some one who would live with him and halve the expense. Joe eagerly asked him to come and share his lodging, and the two friends henceforth lived together, and then began Joe's season of temptation. That night, as he was about to go to bed, he took out his Bible with some trevidation, for he felt that if Robert should see nim reading it he would ridicule him. It is always a sign that persons are not truly and sincerely religious when they are ashamed of being seen praying or reading God's word. Robert Blythe was already in bed, and half asleep, but surprised at the unusual silence that prevailed, he opened his eyes, and saw Joe poring over a book with gilt leaves.
"Why Joe!" exclaimed Robert, " what are you about there. Hang me if I don't believe you're reading the Bible, like an old woman! Why man, surely you're not
a Methodist !"
Joe's face grew very red, and hastily concealing the book, he muttered, that he was no Methodist, and concluded his asservation by an oath!
Alas for his promise; from that day be never opened the Bible which had been

Susan's gift, and his decline and fall in morality was swift and certain. Robert Blythe introduced him to all sorts of bad acquaintances, and the public-house and gin-palace often echoed to Joe's drunken laugh and fearful oaths. His wages were spent in drink, which after he had once tasted, he craved for to such a degree that he could not at last do without it. He, however, was still regular in his habits as a workman, and his employer knew nothing of his drunken propensities, and pleased with his skill and cleverness, increased his wages, and made him overseer of the other workmen. Joe's first thought was of Susan, and his heart bounded as he remembered they could now be married. He had written several times to her, and she had written to him, scrawls indeed they were, but not the less precious on that account. Of late his conscience had given up reproaching him, and it never entered his head, that Susan would be miserable at his altered character. So he requested a week's holidays, which was readily granted by his indulgent employer, and he once more started to cross the Irish channel. How different was his situation, and, at first, how much improved does it appear. The first time he started in a sailing vessel, friendless and penniless, possessing nothing, saving his tools and the clothes on his back. Now, he was in a fine steam-boat, with plenty of money and friends (such as they were), and dressed almost like a gentleman, quite so in his estimation, but I fear not in that of our friends, had they seen the splendid pattern of his waistcoat, or the red and yellow Belcher handkerchief tied round the neck of Robert Blythe, who also accompanied him. The passage was rather rough, and so our two workmen had drank a considerable quantity of raw brandy, to keep their courage up, in the early part of the voyage ; they were, of course, very sea-sick, and miserable enough did the two gentlemen look, when they arrived at Douglas, and once more found themselves on terra firma; their spirits began to revive, and during their drive to Castletown, they again had recourse to the bottle, and when they arrived at their destination they were neither of them in a fit state to present themselves before the pure eyes of Susan Cretney. They, however, fully believed, as they gave a half
tipsy, half conceited look in the glass of the inn at which they intended to stop, that they "should do," and forthwith proceeded on foot to Susan's dwelling. Joe was in such an uproarious state of excitement, that he and his friend sang the whole of the way, and poor Susan was quite alarmed, when the door of the cottage was suddenly opened, and Joe Shimmin, followed by Robert, entered. A glance convinced the frightened girl of the real state of the case, and as Joe threw his arms round her with a noisy greeting, she turned very pale, and almost fainted. Recovering herself, however, she laid her hand on the table for support, and said in a voice which she vainly endeavoured to make firm:
" You are not in a proper state, Joseph, to come and see me. Go away, and I will see you to-morrow."

She was dreadfully frightened, for Joe, completely stupefied, had sunk into a chair, and was staring at her with dull, heavy eyes, and his friend was evidently bent upon insolent familiarity. She felt herself growing more and more faint, and exerted herself to speak once more. She addressed herself to Joe.
"Will you go, if you please, and come again to-morrow when you are sober?"

He did not seem to understand her, but Robert exclaimed, seizing Joe by the arm, -
"Come along, man! don't sit staring there; the young lady has reasons, perhaps, for wishing us out of the way ;" and with a coarse, brutal laugh, he made his way to the door, dragging Joe after him. For a moment after they were gone, Susan stood with her hand to her forehead, completely bewildered, and then sank insensible on the rough, uneven floor. Her grandmother had long been confined to her bed, upstairs, and for some time she lay trembling with alarm at the unusual sounds she had just heard. It was some time before Susan recovered consciousness, and when she did, her first thought was not of herself, but of her grandmother, who must have heard the noise; so with tottering steps she hastened upstairs. The old woman had by this time completely forgotten the occurrence; and to Susan's joy, though Mrs. Cretney was shaking in every limb, she ascribed it to the effect of a terrible dream, which she could not remember. Susan, after attend-
ing to her aged parent's comfort, again went down stairs, and seating herself on the stool, in the chimney corner, gave way to her grief. All her prospects of future happiness were gone. She had heard a short time before that Joe was addicted to the vice of drinking, but the innocent, high-principled girl had not believed it, or bestowed a moment's thought upon the idea, and, now how cruelly was she deceived! She would not marry him ; she felt a curse would light upon her marriage with-a drunkard! Her pale lips quivered as she pronounced the word. What should she do? and the answer fell upon her heart with a soothing influence, as if it were an inspiration from above-pray. And pray she did, and when she rose from her knees, though all hope of earthly happiness was departed for ever, she was soothed and comforted. But she must bestir herself, for the poor cannot afford to waste their time in sorrow; there were limpets to be gathered of which her grandmother was very fond; so she dried her eyes, and checking the impatient longing for death which seized her, she went out to gather the limpets. She had to walk some distance before she reached the spot, and her thoughts were busy as she walked. Strange to say, during that walk, she felt almost happy; her soul was in communion with its God; and with her heart lightened of half its load, she began, when she reached Langness, to gather limpets. It had been a spring-tide, which was now flowing, and she did not notice that she was pursuing her occupation on a part of rock from whence escape would be impossible if the advancing tide surrounded it; and, intent on her task, she did not look up, till she had gathered as many limpets as were necessary. Then she lifted her eyes for the first time, and saw she was completely surrounded by the sea; in a few moments the spot on which she stood would also be covered. For a moment she hesitated, but only for a moment. She saw escape was impossible, and throwing herself on her knees, she committed herself to God. She rose; the water was gradually closing round her-as yet the spot on which she stood was dry.
"I should like my body to be found," she murmured, and hastily withdrawing
her comb from the long luxurient tresses which reached almost to her feet, she began to braid it amongst the seaweed, which was firmly attached to the rock.* When this was completed she calmly raised herself on one arm, and watched the progress of that mighty element which would cause her death. Slowly the waves advanced, and calmly and happily-her every thought a silent, unuttered prayer-she saw her death approaching. Slowly, slowly, and softly crept on the waves; some with uplifted crest, as if they would at once engulf her, then falling back, dissolving into foam, leaving her prayerfully expeeting her end. The water was now at her feet; suddenly a large wave swept over her, followed by another and another. She uttered a faint cry, then all was still, and the waves flowed on sweetly and smoothly, while the corpse lay beneath, and the spirit of the maiden was with its God.

The next morning, Joe Shimmin, alone, completely sobered and miserable, made his way to the cottage. He knew well that his conduct of the past evening had been disgraceful, and he feared to present himself before his betrothed. He arrived at the cottage, and, to his surprise, found the door open, and the room below tenantless. He stopped, and listened, and thought he heard a faint cry proceeding from the bedroom. He rushed up stairs and found the old woman in great distress. From her disjointed narrative, he found that she had not seen Susan since she went out the day before to gather limpets; and Joe, struck with horror as a sudden idea came across him, left the cottage frantically, and set off running as swiftly as his trembling legs would allow him, to Langness. The tide was out, and on a projecting piece of rock, he fancied he saw something like a figure. Horror-struck, he hastened thither, and found it was indeed his Susan. He gazed a moment at the clasped hands and the holy smile still resting on the countenance of her whom he had loved so well, till sin and vice had caused him partially to forget her, and then, kneeling down, while large drops of agony started on his brow, he

[^3]made a solemn vow, before the Almighty, that he would never touch drink again.
Years have passed since then, but never has Joe Shimmin broken that solemn vow. He has never married; the remembrance of the past has cast too deep a shade over his heart and feelings. He is the overseer of his former employer's workmen; and to those young men, whom he sees disposed to drink, he tells his story as a warning, and many have profited thereby. Robert Blythe is in the drunkard's grave ; he died suddenly, while he was intoxicated. He had stifled the "still, small voice" so often, that it was at last no longer heard, and his death, alas, was as he had lived!
473. MAKE A BEGINNING.-Remember in all things that, if you do not begin, you will never come to an end. The first weed pulled up in the garden, the first seed put into the ground, the first shilling put in the savings' bank, and the first mile travelled on a journey, are all very important things; they made a beginning, and thereby a hope, a promise, a pledge, an assurance, that you are in earnest with what you have undertaken. How many a poor, idle, erring, hesitating outcast is now creeping and crawling his way through the world, who might have held up his head and prospered, if, instead of putting off his resolutions of amendment and industry, he had only made a beginning.-G. Godwin.
474. FACTS IN BRIEF.-Out of every thousand men, twenty of them die annually. The number of inhabitants of a city or country is renewed every thirty years. The number of old men who die in cold weather is to the number of those who die in warm weather, as seven to four. The men able to bear arms form a fourth of the inhabitants of a country. The proportion between the deaths of women and those of men, is 100 to 108. The probable duration of female lives is sixty ; but after that period the celculation is more favourable to them than nen. One half of those who are born, die before they attain the age of seven. Among 3125 who die, it appears by the registers that there is only one person of one hundred years of age. More old men are found in elevated situations than in valleys and plains.

## 475. PHENOMENA OF MAY.

The wisest anl best of men have ever entertained a passionate love of flowers. The poet-king of the Hebrews was evidently an ardent lover of nature, and familiar with the phenomena passing around him. "Let no flower," he exclaims, " let no flower of the spring pass by us : let us crown ourselves with rosebuds before they are withered!" And his writings teem with illustrations derived from the beauties of nature around him. [n modern times we find philosophers and poets with the same love of the exquisite productions of the early year-the flowers of May. With what joy old Spenser seems to write :-
"Then came fair May-the fairest maid on ground,
Deckt with all dainties of her season's pride,
And throwing flowres out of her lap around."
And Herrick, too :-
"Oh, May, with all thy flowers and thy greenRight welcome be thou, fair fresh May!"
476. To quote from Shakspere would be truly "Love's labour lost;" for every page is redolent with "the breath of flowers." which, as Bacon observes, "comes and goes like the warbling of music." How the mighty Milton, "from his eminence aloft," sweetly discourses of the denizens of the meadow and the wood, and rejoices over-
"The flowery May, who from her green lap
throws cowslip and the pale primrose."
The yellow cowslip and the pale primrose."
And lesser poets, down to Wordsworth, Tennyson, and Longfellow, revel in their love of flowers.
477. Our Lord and Master sought in the flowers and fields the poetical illustrations of the arguments which he wished to enforce, and in so doing, appealed to a strong perception and love of the beautiful, which is common in every land where Nature is prodigal of floral beauty. "Consider the lilies of the field," said he, "how they grow ; they toil not, neither do they spin: and yet I say unto you, that Solomon in all his glory was not arrayed like one of these."
478. Since May is the festival of flowers, the gay-day of the vegetable kingdom; and since all, from the youngest to the oldest, never think of the time apart from its blossoms and sunshine, leaves and fragrance,
we shall, in this chapter, "consider the lilies of the field, how they grow." A greater familiarity with the denizens of the meadow and the wood, will not diminish the love we have hitherto felt for them, but will add to our list, dear acquaintances whose faces will greet us in our solitary walks, peeping from the hedge side, or by the forest path, to remind us of the everwatchful care which strewed the waste ground with flowers, and covered the desert island, and even the rock, with life and beauty.
479. It is manifest, as plants are not exactly alike, that it is convenient to name them differently ; but it is also plain, that as in some points certain plants resemble each other very closely, it is desirable to group such plants together, and give them names which imply their relationship. This nominal division of the vegetable kingdom into families and orders is necessary, if we seek to gain any general idea of its parts, because it would be quite impossible for any one person to have a detailed knowledge of each individual plant, separately considered, without its relations to others. A similar kind of division is found convenient in almost everything, The country is divided into counties, hundreds, \&c.; the legislative body into lords and commons ; the school into classes and divisions. The surface of the world is artificially divided into sections, by lines of latitude and longitude ; the stars are considered in groups. Knowledge is divided into arts and sciences ; and science again is subdivided into geology, geography, \&c. Division and arrangement is necessary to the consideration of every part of the vast field of nature, and as the vegetable kingdom consists of upwards of 100,000 species, it is especially convenient to those seeking to become better acquainted with inanimate life.
480. In calling attention, then, to flowers and their growth as the most remarkable phenomena of the months of May and June, we propose to consider the best method of becoming acquainted with their nature and properties, or, in other words, what system of classification it is best to adopt in the study of botany. But to do this we must possess some information with regard to plants, such as the names of
their parts, and the functions which those parts are intended to perform. We shall not now pause to consider the difficulty which exists in drawing a line between the animal and vegetable kingdoms, but proceed at once to speak of what are well known as plants. Of these objects, the most familiar part is the leaf; and it is remarkable that all other parts, except the roots and their appendages, can be shown to be no other than transformations of this organ; as a proof of which, it may be ob. served, that petals, stamens, \&c., are liable to reassume, under peculiar circumstances, a leafy character. The transformations of stamens into petals is a common change, and is that which converts single into double flowers; hence, as the stamens perform an important part in fructification, thoroughly double flowers produce no seeds. This theory-that all appendages of the ascending axis or stem, are leaves metamorphosed to serve particular purposes, was originally suggested by Linnæus, but afterwards more fully expounded by the illustrious German poet, Goethe. The first growth from the seed is leaf-like,* and following it come true leaves, and from a succession of these the stem is developed; from the sides of the stem, buds-which are bundles of folded leaves-arise, and from a series of buds the branches proceed. When a certain degree of maturity has been attained by the plant, the leaves upon portions of the stem, near the point at which flowers are about to appear, assume an altered character, and become smaller and more petal-like; such leaves are called bracts. $\dagger$ They are seen on the stem of the rhubarb, are very remarkable objects in the lime-tree, and may be easily found on many common plants. Bracts may, in general terms, be defined to be the leafy appendages between the true leaves and the flower; there are some plants, however, in which they are not found, and many in which it is difficult to distinguish them from parts of the flower itself-as, for examplo, in the common daisy, where the narrow green leaflets, which are so neatly folded over each other at the back or base

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SIZE OF THE DIAMOND OF PATCHWORK SOFA CUSHION. (484).
of the flowe's, are bracts-not parts of the true blossom.
481. It will be convenient if, before we proceed furher, we go into the fields and gather a plant-the more common, the better adayted will it be for our purpose, because the'e will be the greater probability that all ou pupils will be enabled to procure specinens; and they will learn, moreover, at the same time, that the most useful and anusing knowledge may frequently be derivedfrom objects with whose outward appearane we have been for life thoroughly familiar.
482. Who does not know the brightflowered iuttercup? Which of us has not, in joyous infancy, gazed upon its polished golden pitals with a feeling of pure delight that in later years we seldom or never know? The buttercup-dear jewel-flower of chilhood-associated with its sweet companon, the modest daisy! what can be
more fitting subjects for maturer thought than these, the earliest objects of baby admiration! Let us, then, consider these two familiar friends attentively. In the buttercup the natural leaves consist of many divisions, while in the daisy the leaf is in nne piece; in both leaves, however, we find the veins, or fibres of the leaf, distributed upon a somewhat similar plan, viz., a central, or principal fibre, from which smaller fibres arise, and form a network of veins on either side. On cutting the stalks, moreover, and examining them with a magnifying-glass, we discover a further similarity of structure; for we see that there are bundles of woody tissue sym. metrically arranged around a central pith.
483. Above the bracts we find the blossom, which consists of the following parts: -1 . Calyx ; 2. Corolla; 3. Stamens; 4. Pistil. If we look at the base or back of the buttercup, we shall observe five small


PATCHWORK SOFA CUSHION.
The centre star to be bright yellow; the others alternate scarlet and blue; the diamonds to match the centre star; the grounding black or claret; the materials silk, satin, dr velvet.
green leaves, as it were, supporting the yellow leaves of the blossom. Each of these green leaves is called a sepal, and the five sepals together form what is called the calyx, because they are frequently united at their edges, and thus constitute a cup (calyx) for the flower. Within or above the calyx we have five yellow petals, which together form the corolla, a word that signifies in Latin a little crown or garland, and has been applied to this part because the petals (the parts of the corolla) are usually of brilliant colour, and give beauty to the flower. If we remove these yellow petals, we shall find at the base of each a small scale or gland, which was at one time called the nectary, from the idea that it, was the organ which secreted honey. It may here be appropriately
pointed out, that in nearly allplants with branched stems and reticulated (net-veined) leaves, there is a curious relaion in the number of their parts. In the buttercup before us, we found a calyx cosisting of five sepals, then a corolla of jve petals; and in the section of the stem lcount five bundles of woody tissue; in the oher parts of the flower, we shall find also the number five, or a multiple of it. In all such growths the numbers four and fiv, or their multiples, predominate.
485. Within the corolla are smalkr organs, which, though more difficult to ditinguish, are more important agents in the production of fruit or seed. These will require the use of lens to be minutely examined but can be distinguished in their genera

486.

PATCHWORK QUILT.
Section of a pattern for a Quilt.-Materials print and Marcella; light, dark, and white, according to the shading in the pattern.
outlines by the naked eye. Indeed, at first sight, the distinction between the stamens, which are outermost, and of a deeper yellow, and the pistils, which are the innermost, and have a greener appearance, will be obvious. In the common wallflower, the cherry-blossom, and poppy, the difference of appearance between the stamens and the pistils is more remarkable. Let the stamens be removed, and the mode of their attachment to the stem noted; the pistils, with the ovaries, or unripe fruit, will then be seen. In the natural process of growth the petals and stamens fall from the flower, and the unripe fruit goes on increasing without them.
487. In the daisy the parts of the flower are not so distinct as in the buttercup; but
the blossom is a type of a large number of plants, amongst which are the dandelion, sunflower, China-aster, and other flowers having a central disk with white or coloured rays around. These are called composite flowers, because, in fact, a great many flowers compose each blossom. It was explained that the green leaflets at the back of the flower in the daisy were not sepals, but bracts; and the pupil is therefore prepared to find calyx, corolla, stamens, and pistils, within and above them. Gently pull away one of the white leaves of the flower, in such a manner as to bring away with it all the parts attached to its base. Upon careful examination it will be found that a complete floret is thus removed; and by continuing the operation,


SIZES OF PIECES FORMING PATCHWORK QUILT.
it will be manifest that the whole of the head of the blossom consists of a series of flowers crowded together upon the expanded top of the flower-stalk, which is named the receptacle.
488. Having thus described some of the more important parts of the buttercup and daisy, we shall postpone the consideration of the remainder of our subject till the next month, when we shall endeavour to put our pupils in possession of such information as will enable them to decide which is the best system of classification to adopt in the study of botany.
489. TREATMENT OF MEASLES,

Though we would on no account advise the practice of resorting to medicine on every trivial occasion or ailment, either of child or adult, yet, when febrile symptoms show themselves in children, and especially young ones, we must neither neglect the warning they give, nor be slow to encounter them when, and as they occur. The quick pulse, hot, dry skin, flushes of heat and shivering, headache, languor and debility, and cough, which mark the first stage of measles, whether in part, or all present, demand the same treatment.
490. Without entering in this place on the theory of fever, it is sufficient to say that when that peculiar state is present in the
system which constitutes fever, the heart is unduly excited, and where in its healthy state it pulsated, say 80 times a-minute, it now beats 100 or 120 times in the same space. At the same time, what the blood has gained in velocity, it has lost in power ; and the pulse, which is nothing more than the force of the blood as it flows along its pipes or arteries, felt through the muscles and skin; which at 80 felt full and round under the fingers, at 120 is small, wiry, and weak. So much in explanation of the pulse. Wherever there is increased circulation, there we have increased heat; the quick pulse and hot skin result, then, from the exciting cause of the fever and increased circulation. The dry skin is caused by the follicles or pores of the cuticle being filled up with a fluid like the white of eggs, called lymph; which preventing all perspiration, gives that hot, dry, and sometimes burning perception to the skin, which we occasionally find.
491. The shivering and sense of cold, while the body is actually hotter than natural, is partly the effect of the blood collecting in the large organs, as the liver, \&c., and at the same time being unable to pour off its saline particles through the obstructed skin. The headache may proceed both from the state of the stomach and bowels, and also from pressure on the
nerves, from the accumulation of blood at particular parts. The same cause, with the distended state of the digestive organs, equally accounts for the languor and debility, while more blood being received into the lungs than they send out of them in a given time, produces the short cough which so frequently attends measles. Having briefly explained the CAUSE of the primary symptoms, we will now proceed to the treatment of them.
492. When the first set of symptoms are particularly light, a mild aperient, with a cooling drink of barley-water, into which the juice of one or more oranges have been squeezed, are all that is necessary. For this purpose, take of senna-leaves, half-anounce ; manna, two drachms; boiling water half-a-pint. Put into a jug, cover the top, stirring occasionally till cold; pour off the leaves, add a little moist sugar, and give to an infant up to twelve months of age a teaspoonful every four hours, till it acts sufficiently on the bowels. To older children from a dessert-spoonful tothree table-spoonsful, for a dose ; repeating it, if necessary, as often. Of the barley-water, made slightly acid by oranges or a slice of lemon, let the child drink often and freely.
493. When the symptoms are more severe, in addition to these means, put the patient into a hot bath, up to the neck; and if a child, retain it in the water, from three to five minutes, as the bath is merely meant to open the pores of the skin, and bring the blood to the surface; longer time is unnecessary, as it is the heat and suddenness of the emersion that produces the benefit. The temperature must be judged of by the back of the hand, or the arm, which will always afford a good guide mothers seldom err from making the water too hot, the fault generally lies the other way. When once assured of the proper heat the attendant must not be alarmed by the child's cries, or remove it from the bath till the time prescribed has elapsed; all children cry when immersed in water, and the more they cry, while in a bath, the better. We here emphatically impress on every mother and nurse, never to dry a patient coming from a bath. Have a flannel ready for a child, and a blanket for a youth or adult, cover all but the face, put the one into the cradle, and the other
into bed, and cover well up with the clothes. When the patient wakes from the sleep that always follows, it is time enough to dress.
494. If measles have been encountered in the first stage by such means, the second chain of symptoms is generally light; if otherwise, however, and the second class are the first that present themselves, the treatment should begin with the hot bath, especially if there is much difficulty of breathing. The next step is to act on the bowels by aperient powders, and cool the system by a fever mixture, giving the barley water as an occasional drink if there is any thirst. Aperient powders:-Take of grey powder, antimonial powder, scammony, of each nine grains ; jalap in powder, fifteen grains; mix, and divide into six powders. To a child from six to twelve months give half of one of these powders every four hours.
495. For a child from two to four years divide the above quantities into four powders, and give one every six hours. To a child from four to six years divide into three powders, giving one every six hours; and for ages between six and ten divide in the same way, only give a powder every three hours, and continue till the bowels act freely.
496. Where, however, the powders do not produce, at least, two actions a-day, a dose of the senna mixture, according to the age, and previously mentioned doses, may be given once or twice in the twenty-four hours.
497. In ordinary cases of measles the aperient powders, aided by the senna mixture, with the hot bath, is all that is absolutely necessary. As the symptoms improve, the powders may be delayed from four to six, and from six to every eight hours, and ultimately to one powder a-day. But when the febrile symptoms are strong, the following fever mixture must be given, in doses from a small teaspoonful to an infant of one or two years, to a large tablespoonful to ten or twelve years old, every two hours, between the times of giving the powders:Take of powdered nitre, two scruples; mint water, five ounces and a-half; syrup of saffron, half an ounce ; antimonial wine, three drachms. Mix.
498. The only other symptom that calls for special remark, is the difficulty of breath-
ing, which is always most oppressive towards night. For this a hot bran poultice over the chest (see surgical section) will be generally found sufficient, if not, employ another hot bath. Such is the ordinary practical treatment of measles. When, however, the disease degenerates into the malignant form, every endeavour must be bent to rouse the vital powers, and enable the system to shake off the typhoid condition of the blood, for it must be remembered that we have no longer to deal with measles, but typhoid fever. In very young children the great dependance must be placed on port wine negus; or one part of wine to three of water, given in teaspoonsful every hour or oftener; and beef-tea, slightly thickened with sago, and administered every quarter of an hour, and where the debility is great injections of beef-tea every eight hours. Bottles of hot water should also be applied to the feet, and the heat kept steadily to one temperature. In older children, in addition to the wine and water, and beef-tea, it will be necessary to exhibit tonics and stimulants; for the latter brandy-and-water can be alternated with the negus, in spoonsful, every hour or two, according to the age of the patient. While as a tonic the following mixture must be given every three hours:-Take of compound tincture of bark, three drachms; aromatic tincture, two drachms; spirits of sal volatile, one drachm ; spirits of camphor, half a drachm; syrup, two drachms; water sufficient to make three ounces in all. Mix. Ten to twenty drops of this mixture to be given to an infant from one to two years old. A teaspoonful from two to four years ; a dessert spoonful for six years; and a table. spoonful for all above that age.
499. The bowels should be kept open once a day by a powder, or dose of senna mixture. As the vital powers begin to rally, the tongue will commence cleaning at the point and sides, a moisture will appear on the surface, and the dark appearance of the spots gradually change their colour to a more healthy tone.
500. Four grains of quinine, dissolved in three ounces of water, and given in doses of from twenty drops to a tablespoonful may be taken to complete the cure after the previous mixture. Especial care, however, must be taken to keep the bowels well open for
some time after the disease is cured, so as to save the body from those eruptions commonly called the dregs of the measles.
501. Diet, and such information as applies equally to all eruptive diseases, we shall treat of when we conclude this branch of our medical subject.
502. GET KNOWLEDGE.-Fetch down some knowledge from the clouds, the stars, the sun, the moon, and the revolutions of al. the planets. Dig, and draw up some valuable meditations from the depths of the earth; and search them through the vast oceans of water. Extract some intellectual improvement from the minerals and metals; from the wonders of nature among the vegetables and herbs, trees and flowers. Learn some lessons from the birds and the beasts, and the meanest insects. Read the wisdom of God, and his admirable contrivance in them all : read his almighty power, his rich and various goodness, in all the works of his hands.-Dr. Watts.
503. WORDS.-Words are in this respect like water, that they often take their taste, flavour, and character from the mouth out of which they proceed, as the water from the channels through which it flows. Thus, were a spendohrift to discourse of generosity with a miser, a demagogue to declaim on public good to a patriot, or a bigot to define truth to a philosopher, ought we to wonder if the respective parties mutually misunderstood each other ? since, on these particular terms, each is his own lexicographer, and prefers his own etymologies to the industry of a Skinner, the real learning of a Junius, or the assumed authority of a Johnson.
504. HUMANITY.-Humanity is, in regard to other social affections, what the first lay of colours is in respect to a picture. It is a ground on which are painted the different kinds of love, friendship, and en-gagement.-As the ancients held those places sacred which were blasted with lightening, we ought to pay a tender regard to those persons who are visited with affliction.-A general civility is due to all mankind; but an extraordinary humanity and a peculiar delicacy of good breeding is owing to the distressed, that we may not add to their affliction by any seeming neglect.

## 505. ELOCUTIONARY EXERCISES.

## I.

Nay, dearest, nay, if thou would'st haveme paint The home to which, could Love fulfil its prayers, This hand would lead thee, listen !-a deep vale Shut out by Alpine hills from the rude world;
Near a clear lake, margined by fruits of gold And whispering myrtles; glassing softest skies As cloudless, save with rare and roseate shadows As I would have thy fate!
A palace lifting to eternal summer
Its marble walls, from out a glossy bower Of coolest foliage musical with birds, Whose songs should syllable thy name! At noon We'd sit beneath the arching vines, and wonder Why earth could be unhappv, while the heavens Still left us youth and love! We'd have no friends
That were not lovers ; no ambition, save
To excel them all in love; we'd read no books That were not tales of love-that we might smile
To think how pcorly eloquence of words
Translates the poetry of hearts like ours !
And when night came, amidst the breathless heavens
We'd guess what star should be our home when love
Becomes immortal; while the perfumed light Stole through the mists of alabaster lamps, And every air was heavy with the sighs Of orange-groves and music from sweet lutes, And murmurs of low fountains that gush forth I' the midst of roses!-Dost thou like the picture?

## II.

Pauline, by pride
Angels have fallen ere their time; by prideThat sole alloy of thy most lovely mouldThe evil spirit of a bitter loye,
And a revengeful heart, had power upon thee. From my first years my soul was filled with thee: I saw thee midst the flow'rs the lowly boy Tended, unmarked by thee-a spirit of bloom, And joy, and freshness, as if Spring itself Were made a living thing, and wore thy shape! I saw thee, and the passionate heart of man Enter'd the breast of the wild-dreaming boy And from that hour I grew-what to the last I shall be-thine adorer! Well; this love, Vain, frantic. guilty, if thou wilt, became A fountain of ambition and bright hope; I thought of tales that by the winter hearth Old gossips tell-how maidens sprung from Kings
Have stooped from their high sphere; how Love like Death,
Levels all ranks, and lays the shepherd's crook Beside the sceptre. Thus I made my home In the soft palace of a fairy Future! My father died; and I, the peasant born, Was my own lord. Then did I seek to rise Out of the prison of my mean es!ate; And, with such jewels as the exploring Mind Brings from the caves of Knowledge, buy my ransom
From those twin jaolers of the daring heartLow Birth and iron Fortune. Thy brightimage, Glass'd in my soul, took all the hues of glory,

And lured me on to those inspiring toils By which man masters men! For thee I grew A midnight student o'er the dreams of sages ! For thee I sought to borrow from each Grace And every Muse, such attributes as lend
Ideal charms to Love. I thought of thee,
And Passion taught me poesy-of thee,
And on the Painter's canvas grew the life
Of beauty !-Art became the shadow
Of the dear starlight of thy haunting eyes!
Men called me vain-some mad-I heeded not
But still toil'd on-hoped on-for it was sweet,
If not to win to feel more worthy thee!
At last in one mad hour, I dared to pour
The thoughts that burst their channels into song,
And sent them to thee-such a tribute, lady, As beauty rarely scorns, even from the meanest. The name-appended by the burning heart
That long'd to show its idol what bright things It had created-yea, the enthusiast's name, That should have been thy triumph, was thy scorn!
That very hour-when passion, turned to wrath, Resembled hatred most-when thy disdain
Made my whole soul a chaos-in that hour
The tempters found me a revengeful tool
For their revenge! Thou hast trampled on the worm-
It turned and stung thee!
From "The Lady of Lyons.'
III.

And art thou tired of being? Has the grave
No terrors for thee? Hast thou sundered quite
Those thousand meshes which old custom weaves
To bind us earthward, and gay fancy films
With airy lustre various? Hast subdued
Those cleavings of the spirit to its prison,
Those nice regards, dear habits, pensive memories,
That change the valour of the thoughtful breast To brave dissimulation or its fears?
Is hope quench'd in thy bosom? Thou art free, And in the simple dignity of man
Standest apart untempted-do not lose
The great occasion thou hast pluck'd from misery,
Nor play the spendthrift with a great despair, But use it nobly! Not to strike or slay :
No!-not unless the audible voice of Heaven Call thee to that dire office-but to shed On ears abused by falsehood, truths of power In words immortal-not such words as flash
From the fierce demagogue's unthinking rage, To madden for a moment and expireNor such as the rapt orator imbues With warmth of facile sympathy, and moulds To mirrors radient with fair images,
To grace the noble fervour of an hourBut words which bear the spirits of great deeds Wing'd for the Future; which the dying breath Of freedom's martyr shapes as it exhales, And to the most enduring forms of earth Commits-to linger in the craggy shade Of the huge valley, 'neath the eagle's home, Or in the sea-cave where the tempest sleeps, Till some heroic leader bids them wake To thrill the world with echoes !

From "Ion," a Tragedy.

## 506. A LEAF OF LIFE.

The pool wherein my line was dropped, and the upland on either side, were gloomy and dark beneath a cloud, while behind me the fields through which I had sauntered, and the stream upon whose sandy banks my footsteps were yet sharply defined, weltered in waves of sunlight. I could not but think, with a melancholy pleasure, how like to this scene my life had been; how from the sadness and weariness of existence, I had often looked back to scenes through which I had passed, that lay calmly and lovingly in the light of remembered happiness.

Why is it, when our feet are upon the borders of life's fairy land, and our lips are just about to taste the cup that is filled for us but once, that no unseen guardian tells us to tread slowly across the narrow space, and to waste not a drop in the shallow goblet? Else, in that dear time, I had not trampled with heedless step upon many a flower of tenderness; I had not so hastily drank that magical draught; and the sweetness of the odour and the thrill of the libation had been fresher in my mind to day.

Yet, while I thus mused, the cloud crept up the stream and along the fields. It seemed as if the light pursued the shadow with relentless hostility, driving it onward, onward, until its dusky banner was torn and rent amid the distant forest of pines. So the cloud fled from my heart, pursued by a name that trembled on my lips, and a memory that aroused itself in my heart; and the name and memory, Mary Linley, were yours.

Oh, how, as I write, the army of ancient remembrances marches down the valley of the past, and encamps before my heart, beleaugering and besieging it! And eyes looked kindly upon me, and hands put softly back the hair from my forehead, though both, alas! sleep in the grave today.

I had gone to my uncle's to pass a college vacation. Those were days in which I date the birth of many new sensations, many gorgeous hopes. There are few men whose hearts are so cold that the remembrance of that golden age of life will not warm into transient life. To me it seems
too full of delight ever to have been real, Until the season of which I write I had but rarely been thrown into the society of women. The wild and buoyant associates of my college-life had hitherto supplied all craving for companionship. The charm attendant upon familiar acquaintance and frequent intimacy with women of refinement, of elegance and truth, was to a great degree unknown to me. I had no sisters, and my earlier life had been spent at school; so that, although I was fully eighteen, I blushed like a boy at the tone of woman's voice addressed to me, and my eye sank beneath the ray that quivered and glowed in hers. My words, which among my college friends had been loudest and boldest, were hushed into silence, or uttered with stammering awkwardness in the presence of the most timid girl. Woman was to me a planet, whose orbit mine might never cross. I invested her with unreal attributes and a visionary nature. I adored at a distance the image before whose shrine I did not dare to prostrate myself. Her delicate beauty and tenderness of form seemed to me unfitted for contact with the coarser and less ethereal sex. When I was in her society I admired as well as was awed, but found no language wherein to express either feeling.
I dare say that many a man, in whom today the presence of the most beautiful, most gifted, most haughty lady of the land would only excite his most confident and successful endeavours to fascinate and charm, whose life has been a round of ever-shifting acquaintance, or perhaps a succession of passionate romances with the fairest and loveliest of earth, can recal the time when his cheek grew as crimson at the glance or voice of woman, as, it may be, her's did, to whom he last spoke the words of devoted and deathless love.
It was late at night when I reached my uncle's residence. I had not visited him for years, and only did so at this time at the invitation of his son, who was to pass some time at home, having just returned from abroad. John Guernsey, my cousin, was half-a dozen years older than I. I remembered him as he looked years ago, when we played together at my father's, a bold, dark-eyed boy, with a complexion of the clearest olive. I remembered how I followed
him, though timidly, in his daring and active sports. I remembered how we parted, he to go to the East, where his father had procured for him a situation in a large mercantile house, and I to go to school. I remembered my grief (it was my first) as he laughed at my tears at our parting, though I thought I saw his own eye dimmed. Since then we had met but once ; and now, two or three months after his return, he had written to me, in the same frank, hearty style, that characterised his boyhood, "to come and see him, and be boys together once more."

My uncle had gone to bed, but my cousin was sitting up awaiting me. At his first warm, loving tone of greeting, I felt the years that had intervened since our boyish days melt away, and the true, honest love of boyhood was felt in the grasp of our hands.

We sat down together in the old parlour. Then it was that I first saw how much he had changed in form and face. The sun of the East had made his skin more swarthy, and the fire of his eye was ten-fold more brilliant and piercing than I had known it before. Yet the tone of his voice, and the ringing truth of his laugh, smote with oldtime familiarity at the doors of my memory.
" Hugh," said he at last, after the chimes of "lang syne" had been rung again and again, "you've not seen much of the world, I think, since I left you."
"Yes, indeed, this is my third year of college."
"College-what idea of life can that give you? Have you ever, after tossing for months upon the sea, found yourself thousands of miles from home in a strange land, amid strange faces and strange tongues? Did you ever feel that it was your own arm alone that must guard you, and your own quick thought that must find the path of success? Did you ever look in eyes that blazed beneath another sky than this, and read the book of woman's heart in different languages, and find that the sense was always the same."

He smiled meaningly as he said it, and it was with some confusion that I answered. "I dont know much about women ; for you know, John, I never met many."
"What," said he, have n't you got any love-secrets to tell me? Is there not the
image of some dear girl nestling close tc your heart now?"

I indignantly repelled the charge which implied, as I thought, so much weakness, and assured him that I considered such avowals quite inconsistent with manhood.
"No, John," said I; " all this reads very well in novels, and that sort of thing, but it won't do, you know-" I paused, for I saw him laugh again.
"Never mind, Hugh, Mary will tell you you are a fool."
"Mary !" exclaimed I; "what Mary ?"
"Oh," replied John, "I did n't tell you that my father is guardian to the daughter of his old friend Linley? Mary was left an orphan at her father's decease, and Mr. Guernsey has adopted her. She has been here ever since I have been at home."

If any thought came into my mind, it was one of dissatisfaction, for I thought that her presence would interfere with the execution of the various schemes of diversion and joviality which I had laid out to accomplish with John. So I only said: "How old is she?"
"About as old as you, you anchorite, and with twice your knowledge, if you are a book-worm." I puffed my cigar with an assumption of stoical indifference, and said that all Marys were alike, I supposed.
" Of course they are," said John, " if you, who know woman so well, say so." I felt than he was secretly laughing at me, and resolved that my indifference to Miss Linley should show him that I was not the unskilled boy he took me to be.

We spoke no longer of Mary, but in a short time parted for the night, with a fervent "God bless you!" on our lips and the love of boyhood warm in our hearts. Yes, John, I seem to see you now, as you stood at my chamber-door, smiling kindly on me as you bade me good night; and I thank God that I did not forget the honest affection of that smile in an hour when evil passions would have made me curse you.
I met my uncle the next morning before breakfast. He was a mild, quiet-looking man, and my heart warmed towards him, for his features were those of my mother. John joined us soon with a fresh, frank "Good morning," and we soon were busy in speaking of those who were dear to us all. I remember distinctly to-day in what
part of the breakfast-room I sat; how the delicious odour of honeysuckle came in at the open window; how the nameless influence of the summer's morning stole into my heart and softened it.

We were waiting for Miss Linley. The door opened. I was looking out of the window, and did not turn round for a moment or two. As I did so, I heard John say: "Mary, this is my cousin, Hugh Hatton."

I think that there must be moments in men's lives when they are controlled by a power instantaneous and irresistible ; when, by some strange chemistry, the whole nature of the heart is changed in a single interval of its throbs; when a new passion is given to them, the origin of which is too mysterious to be solved. For, before I turned from the window, I had never supposed myself capable of loving at all; and before John had finished his few words of introduction, the passion of a life-time had been condensed and crowded into my heart. Yes, I loved that girl as intensely when the last syllable of my name died upon John's lip, as I ever did thereafter; and how earnest, how burning that love has been I know, but cannot tell! I hardly know now what I said. If my speech was confused and hesitating, they ascribed it only to bashfulness and timidity, and took no farther notice of it. At the table their conversation was animated and lively, and I had ample opportunity of gathering into my heart's treasury her every feature, glance, and word.

As I recal her now, now when the experience and lessons of life have left their marks upon my soul, I do not think it could have been her beauty solely that caused such a sudden growth of love. No, it must have been some unexplained sympathy, some unappreciated affinity, that awoke and unveiled the slumbering passion of my soul. She might have been baseborn, rude, unrefined, for aught I knew, and yet a single glance unsealed the fountain whose flow has cut a channel in my heart that is deep, though dry to day.

I shut my eyes now, and I see her as she looked then. Not very tall, but with a form wherein every womanly grace was swelling in its most eloquent expression. Her hair was brown (how often I foolishly
fancied that the hue of mine was like that of hers !), and put back in plain folds each side her cheek; her eyes I thought at first were blue, but really were of that hazel that changes with every rising thought; but when at rest they wore a mournful, tender look, that seemed to fathom the depths of my soul. Her face was oval, the mouth small, and the parting of the rich red lips disclosed the transparent and regular teeth. I remember as I gazed on her, that I thought of a picture of the Madonna I had seen when but a child. And thenceforth she to my heart was its Madonna.

That forenoon John rode to the neighbouring village for letters and papers. My uncle was reading in the library, and I was left with her alone. I think that she noticed my awkward manner and incoherent conversation, for, with woman's true tact, she strove to make me feel at my ease. She spoke of everything that I might be supposed to be interested in, which might be familiar to me, of my studies, of my college life, of my uncle, and my future purposes. And when her kind intentions seemed to be baffled by the strange manner and repelling mien with which my madly-beating heart indued me, she said, with a smile, that she supposed I liked music, at any rate she would try to teach me to, and so sat at the piano to sing.
Has the echo of that song ever died? will it ever die? Is it not burning in my brain? is it not ringing in the room tonight? Never before had every fibre of my heart so thrilled; never before had the coldness and falsehood of my nature been fused by harmony. I inhaled as it were every note; I prolonged with inward response every cadence. I thought that the summit of earthly fame was to have written "Mary of Argyle;" the acmé of earthly happiness, to have heard as I did, Mary Linley sing it. When the last strain ceased I felt as if some portion of my very being had been annihilated and stricken for ever away.

When John returned, he asked Mary if she had not found me poor company?
"No, indeed," she replied, laughing, "Mr. Hatton is the best of companions. He is n't so vain as you, you who want to say and do everything yourself."
"Ah!" replied my cousin, " you don't know Hugh. He is artful, and this very modesty and silence is the key-note of his tactics. While he is hanging on your words, and dwelling on your glances, he is, in fact, studying the best access to your heart. So, take care, Mary."
I could have struck him, though I knew that he was but jesting; though 1 felt she knew it too, yet I could not bear that she should ever be told, even in jest, that I had wasted a thought, a word, a look on any other woman in the wide world but her.

Day after day passed. Though I was in her company constantly, I always was absorbed with but onethought, that of concealing from her the love that was crushing my heart to death. I suppose that at times I must have seemed even morose and unkind in my endeavours to hide a passion as hopeless as it was absorbing. For she seemed so much above me, so far beyond my reach, so infinitely superior to my highest deservings, that I sometimes wondered that I dared even to love her in secret. But though that stifled passion ate into my very heart-strings, I thank God that no moan or complaint of mine ever told my pain; that my fear repressed the utterance of my love.

I noticed that her manner with me was different from what it was with John. With me she was always gay, lively ; smiling at my shyness, laughing at my abrupt and unkind words-oh, how bitterly they belied my heart. She was always ready to sing to me, always ready to walk or ride with me; and if I showed any rude disinclination to either, though at the time I would bedying to consent,she wonld compel me to yield to her will by a charming assumption of authority.

But with my cousin she seemed entirely changed. She rarely, if ever, sought his side; her eyes were never fixed fully upon his, and her conversation with him, even upon the most trivial subjects, seem constrained and suppressed. If he entered the room when she was alone, she would soon leave it, and in all our walks and drives she always seemed to choose my companionship rather than his.

Let not the man who is deeply skilled in the mysteries of woman's heart, sneer at me because I only judged of things as they |
seemed. I had not been taught the lesson, that the noble delicacy of woman's love trembles at any act which might be evincive of her partiality until the words which she longs, yet almost fears to hear, steal from the lips of the loved one; until from the strength of manhood's passions are wrought out the syllables that burn like fire into her heart and memory, "I love you."

So our days went by. I was gradually losing my constraint, and found in my daily intimacy with her a charm that aroused new and undreamed of powers. I no longer blushed when she spoke to me. I no longer avoided her glance, but would set gazing into her eyes with such earnestness and devotion, that I wonder my secret was not revealed to her. I loved to hear her speak, and God only knows what gorgeous dreams of future happiness entranced me as I listened, spell-bound, hour after hour, to her words. But chiefly I loved to hear her sing. I would stand by the piano in those sweet summer evenings, while the stars went up one by one into their places, and listened with hushed pulse and tearful eyes as she uttered those sounds, that seem even now in the stillness of night, echoing from heaven, to float from angellips down, down through the illimitable ether into my ear. Oh! seasons of voiceless delight, do you never return? Is there no melody left for me on earth, that can revive you? Are the voices of sweet singers and the chiming of liquid and lulling strains for ever to fall coldly on my ear after that epoch of song?

I remember now, how as she would sing some strain of passion, her voice would grow lower and fainter, and her hands pause listlessly on the keys of the instrument, and how I, looking into her eyes, could see the tears. Then came over me a strange feeling of happiness, for I thought-and I thank God for the bliss I felt in thinking so-that the song might have awakened in her bosom some answer to the silent love that was coiled, snake-like, round my heart.

But your hands, dear Mary, hold tonight, an angel's lyre, and your voice floats through the arches of heaven.

Oh! glorious visions, why did I ever awake? Why did I not die then? Die in the half-formed and timid hope, that on
ner heart's tree, one bud of tendęrness and love was blossoming for me? I am thankful now that at those moments I resisted the mighty impulse that would have made me fall at her feet, and utter my broken tale of burning passion; I am thankful that she never heard the words that thronged in those moments to my lips.

Sometimes John would come softly in while she was singing, and stand silently behind her. But when she was aware of his presence, she would rise and glide from the room; and then I would feel angry that he should step within the charmed circle of my happiness, and cause the beautiful spirit whose presence was blessing me to vanish.

But for all that I was at times inclined to look upon my cousin coolly, both on this account, and because I thought he was distasteful to Mary, and so should be disliked by me, I loved him more and more every day. His manly heart, his unfeigned friendship, the countless exhibitions of his affection for me, the pleasing remembrances of boyhood, all conspired to link me to him with bonds that the grave has not broken and death has not decayed. And if it be given to departed spirits to revisit earth, to be at the side and read the heart of those they loved in life, you know to-night, dear John, that your memory is green and sacred in my soul.

A month had passed, a month that was to me one waking trance of fierce delight. I doubt if ever there had been a moment of it that had been divided from her possession; sleeping or awake, in his presence or out of her sight, the seething billows of passion still beat on the sea-beach of my life, with unchanging sound, with unaltered crests. I began to indulge myself in long and solitary walks, wherein I hugged and gloated over my new-found treasure, wherein I built up great arches for the bridge of the future ; and the key-stone of them all was Mary Linley.

The night-I never shall, I never can forget that night-the twilight had just blended into the moonrise, and I had strolled across the fields and entered an old pine-forest that was of no great extent, and of which the trees were not so numerous as to impede one's progress. Indeed it was pierced throughout with many paths, the work of art as well as nature, in which one
might walk with great comfort. The delicious damp odour of the evergreens; the perpetual sighing of the tasselled pines, the bars of moonlight that lay across my path, heightened the ravished feeling that my thoughts had induced into a sense of delirious enjoyment and rapture.

I sat down on a fallen pine, and looked up through the tree tops into the sky. I never felt so near it as I did then. I resolved that on the morrow I would confide to Mary all the stormy thoughts that were beating fiercely at my lips for expression; I would tell her all I had suffered, all I hoped ; and I fancied that I could feel her soft arm round me, and her warm lip quivering on mine, and could hear her half-hushed, but still most intensely audible answer: "Yours, dear Hugh, in life and death."

I was seated out of the beaten path, from which I was separated by a thick growth of young fir-trees. The path itself was bathed in light, while the shadow of the trees fell deeply upon me; I heard footsteps coming along the walk, and resolved to sit in silence till they had passed. They stopped, however, directly in front of me. I caught the gleam of a female's dress through the fir openings; I was about to start forward when I heard the voice of a man in earnest conversation with her.

I solemnly declare that I had not heard a single syllable, I had not even seen the face of either, before an awful and nameless dread crept over me. What it portended I knew not, but I felt a great agony sinking, and growing intenser as it sank, into the depths of my palpitating heart. I leaned forward with strained eyes and in sickening suspense. It was my cousin and Mary! They stood side-long to me, and the moonlight was full upon their faces. Her hands were clasped in his, and her face was up. turned to his own with an expression of angelic sweetness and trusting love. He was speaking. Was each word a coal of fire, hot from the furnace, that it so scorched and burned into my soul? Was the air that I breathed an atmosphere like that of the damned?
"Mary, dear, you know my heart now; you trust in my love, don't you ?"

A smile of tenderness was the only reply "Darling, I have dreamed of this for
years !-of this very moment, when I should look into your eyes and see there the wealth of your heart's true love, glittering for me alone; of this very moment, when my passion and your reply should be sealed thus."

He stooped to kiss the lips that shrank not from him.
"Mary, I have never known before the secret of life. My feet have wandered to many a spot, my heart has beat in many a measure, but the spot where our fect stand now is to me, to both of us, the soil Eden; and the throbbings of our hearts are laden with the fulness of a delight that must be lent us from Heaven. Here let me rest. Beyond the haven of your love let the bark of my passion never go; there let it furl its sails and anchor for ever. Thither the storm and strife of life's under billows shall never reach ; thither the sound of its tempests shall come but faintly and hushed. I am henceforth to own but one memory, one hope ; the memory of to-night; the hope that God will give you to me on earth and in the grave! "

And she answered: "John, dear John; it was long ago I loved you; but I feared that you never would care for me, and I hoped and prayed that you might never know my love for you, if your own heart was cold. I am sure I prayed so, and I prayed too that you might love me dearly; that you might-"

She said no more, for he had clasped her in his arms, and they were locked in the long, lingering, passionate embrace of love.

In the open field, with my face on the cold, damp ground; in the shadow of the pine forest, clutching the grass in my agony. How I came there I never knew. There I lay, with a thousand thoughts rolling like fiery billows over my heart, and a thousand hideous shapes grinning and howling at me. In that fearful phantasmagoria of torrent, I could not arrest a single thought or a single shape. They rolled and whirled by in endless succession, but I felt, I knew that they were all alike. I sprang to my feet, as if to shake off with a vigorous effort these dreadful persecutors, and as I looked out in the field beyond the black, evenly-defined shadow of the pine forest, I saw them in the shapes of John and Mary, walking slowly along in the
moonlight. The air about them appeared of a golden hue, and their steps seemed to be on beaten silver ; but I was standing in the blackness and gloom of the forest shadow, with a yet more rayless blackness and gloom upon my heart.

How long I stood there I cannot think. I have thought since, that in that fearful season, all my powers of reason, reflection, and memory, must have been swallowed up in the fearful vortex of passion that was hissing and boiling in my heart. When its waves grew calmer, and the fiery veil was drawn from my eyes, I walked hurriedly to the house. I paused in the flower-garden before it. The blinds of the parlour windows were closed, but the casement was up, and I heard her singing. I felt that John was beside her, leaning over her shoulder, his black curls mingling with her damp, soft, brown hair. I could not see this, but a thousand daggers of conviction at my heart made me feel it. Presently the song ceased, and the low, earnest tone of impas. sioned words, came 'on the still night air. I should have gone frantic to have waited there one instant longer. I opened the front door softly and stole to my chamber, entered it, and locked the door.

I sat upon the side of my bed. For some time I did not think at all; the only things that filled my mind, were pictures of what I had seen, and echoes of what I had heard. At last the silence and calm of my room restored me, and I endeavoured to give my wild and shapeless thoughts some form; and first of all appeared, with stony, fearful, changeless, Sphynx-like gaze, the embodied conviction, "She does not love you! She will never love you !" Then arose (forgive me John; I cannot forgive myself !) a bitter, desperate, and demoniac hatred of my cousin. May such cursed impulses and black resolves as flapped their ominous wings above my tortured spirit in that hour, never, never visit me again! I shudder when I think of them. But in the midst of the strife of my anguish, I lifted my eyes to the wall of my room, and there, hanging in the moonlight, I saw the picture of John, painted years ago, when we played together. It seemed to look upon me with a look wherein the ancient love-light was blended with a mournful chiding. It aroused the recollections of our spring-time
of life; it pleaded with the hearty friendship of our later days; it recalled the last " God bless you, Hugh! Good night!"

I buried my face in the pillow and wept. Those tears were the gift of God; there flowed away with them all rancour, all malice, all loathsome revenge ; and nothing, nothing was left behind but a great and deep sorrow, that they could not wash away. Are there not traces to-night where the lava and fire has been?

I arose with a calmer and lighter heart. I thanked God that the affection of my heart for John had passed unmelted through the fiery furnace. I was thankful in being able to reflect, that neither of them suspected the secret of my heart, and that their love might never be embittered by the thought of the hopelessness of mine.

What a long and terrible night that was ! What years of pain were crowded into its weary watches! They say that intense fear or a night of great bodily anguish will sometimes turn the blackest hair to the silver hue of age. I know that in those fearful hours my heart grew very old.

My purpose was fixed ; my plans were formed. I must leave the place the next day, and never, never see her again. I packed my trunk, and as I finished my preparations for departure the morning was flushed and glorious. I softly stole down stairs, and sent a servant over to the post-town to direct the stage to come for me. I picked a little bunch of roses from a bush I had seen her tend, and wandered listlessly around the house in the apathy of despair.

A sudden step in the gravel-walk and a ringing "Good-morning, Hugh !" It was John. I grasped his hand with an iron grasp, as if thereby to wring out all remembrances of the evil thoughts of the night before.
"Why, Hugh, where were you last night? Mary and I hunted everywhere for you. But my father said he heard you in your room, and going up I found you locked in. Were you sick ?"
"Yes," I answered, "I was taken suddenly and violently ill, and laid down."
"Poor fellow! you look dreadfully haggard and pale. But I have something to tell you which I think will restore you to something like your wonted spirits."

I did not look him in the face; I dared not. He continued :
"Perhaps you have suspected all along that I loved dear [ary. Last night I knew for the first time that she loved me. I have seen my father this very morning, and he tells me that I could not have chosen any one that could have been more pleasing to him."

I could not speak. I feared lest I could not control my words.
" We shall live here at the old homestead, Hugh, and you must stay with us as much as you can. Mary loves you almost enough for me to be jealous of her."

Another struggle to crush down the rising devil in my heart. Taking me by the arm, he continued: "Come into the house, dear Hugh, and wish us both joy."

My brain swam as I entered the breakfast parlour, where my uncle and Mary were seated. Both looked cheerful, joyous, and happy. I felt as a damned spirit might in gazing through the gates of Paradise. I dt not know what I said in relation to John and Mary's engagement ; I only know that as we rose from the table I announced my intention of departure. I met all urging and solicitation to stay longer with the brief reply that my vacation was nearly over, and that I could not remain any longer. My trunks were brought to the door, and I sat in the room with John and Mary, awaiting the stage. It came rumbling along the road. It stopped at the gate. I wrung the hands of my uncle and John, and was about to leave Mary with hardly a word of farewell, when she laid her hand on my arm and said:
"Dear Hugh, are you going to leave me so ?"

There were tears in her eyes as they looked up at me. I stooped and pressed my lips to hers, and with the fire and madness of that touch burning in my veins, I uttered a trembling "God bless you!" and in a minute was whirling down the road.

I saw the group as the stage turned a corner of the lane. John was standing with his arm around Mary's waist and her head upon his shoulder. My uncle was behind them. They were waving their hands toward me in token of a last goodbye. It was too much to bear. I sauk
back in the stage and wept as if my heart would break.
The wound of that first anguish was yet green, though many a month had gone by. I had left college, and was about to leave the country. I had heard occasionally from John and sometimes from Mary. Their letters were like barbed arrows to my soul. They spoke of their mutual, trusting love, of their plans, of their sunny hopes. They were to be married in the autumn, and after apleasure-journey, return to the old mansion, there to stay for life. I had determined to remain till after their marriage, and then go, I hardly knew whither ; but the fountain of Lethe flowed, I hoped somewhere beyond the sea.

A letter from my uncle. I read and reread it, for I hardly thought it real. It spoke of a sudden, an unexplained, a mysterious quarrel between his son and Mary. John had suddenly departed for India, and Mary was lying at the brink of the grave. Weeks went on, and the crisis in her illness had passed and she was recovering.

Everything still remained unexplained. Mary never spoke of the fatal word or act, whichever it might be, that had produced this wretchedness, and no one had the cruelty to probe the wound. All was conjecture, all was doubt. I had resolved, however, not to go away, but to stay at home, in the hope that time would solve the mystery. I had not as yet seen her since I left her that summer morning, when she stood by John's side. But I was to see her once more.

I have but barely touched on these occurences; they were so startling, so unexpected, that they hardly seemed true. The quarrel, John's departure, Mary's illness and convalescence, all were to me as a painful dream.

At last a letter came from Mary herself. They had just received intelligence that John was dead. He had fallen a victim to a fatal epidemic, and he was sleeping by the banks of the Ganges. Her letter was touching in the extreme. It told me of the sorrow that was preying upon her life; it asked me for the sake of the old time,
to come and see her once more before she died.

Whirling down the green lane again; stopping at the old gate. I saw the house though the trees; I felt the gravel that I had so often trodden on grating under my feet. My hand was again on the latch of the door, my step was again in the hall. My uncle met me cordially and affectionately. He forestalled the question that was struggling to my lip.
"She is sinking every day. She has been hoping to see you hourly."
" Where is she?"
"You must not see her to-night. She is asleep, and I should fear to awaken her. To-morrow you shall see her, and I hope your presence may revive her. She has spoken much of you."

I slept that night in the same chamber wherein I had passed that other night that was branded upon my memory. But my feelings were changed. John, my noble cousin, was dead and resting beneath a faroff sun; and she, the beautiful, was sinking to the grave. Where were their hopes of happiness? Into what realm of vanished loveliness had fled their tender dreams of bliss? Oh, the tears I shed that night were not those that fell in that season of crushed hope! I saw John's portrait hanging in the old place, and gazing at it, I prayed long and earnestly ; and rising, I felt a calm tranquillity flowing into my heart, and the old love that had ruled me so long and so sternly seemed to have lost the cruel and stony gaze that it wore in former hours, and looked on me with a a tender glance, as of that of an angel. My love for Mary Linley was more like a sacred memory than a passion. Was she not dead to me-dead, and wrapped up in the shroud of John's love? I slept calmly and peacefully, for the spirit of one that had loved her faithfully in life floated through my dreams.

The morning came. She was sitting in the parlour propped up in a huge easy-chair with pillows. I entered the room softly, and she did not hear me till I was kneeling at her side and sobbing in her lap. She put the hair back from my forehead and smiled faintly as she chided my emotion. I could not speak, I could not breathe, as I gazed in her face.

The same, but still how altered! Every feature was attenuated to a trasparent delicacy, through which the very veins were visible. Her eye was more brilliant than ever; the soul looked more brightly out of it as it drew near its home; the wealth and richness of her brown hair was thrown back negligently from her forehead -the hair that in other days had been twined round my fingers. Her voice was very low, but of ineffable sweetness.
"Hugh, dear Hugh, I feared that I should not see you again."
"I would have come to you from the dead."
"Hush," she replied, " you must not speak of the dead. Is not John among them, and he will not come back ?"

I could not answer her, and she continued:
"I killed him, Hugh. If it had not been for my wicked unkindness, he would never have left me; he would never have died away from home, away from me."
"The issues of life," said I, "are not with us ; he might have died here, beneath his own roof tree. And Mary, wherever, however, he died, I believe, with an unchangeable belief, that your name was last upon his tongue, and the thought of you was next to that of his God in his heart."
"Oh! if he had only come back!" she sobbed, " if he could only have heard me tell him that I loved him more fondly, more truly than ever; if I could have only felt his kiss upon my cheek, and have heard one syllable of forgiveness, I could die without a murmur. But he left me, Hugh, in anger! yes, it was I that killed him !"

I strove to soothe her, but in vain. Fearing that my presence would excite her into a dangerous state, I soon left her, and went out with a sad and mournful heart. For she was dying. I saw where the unmistakeable traces of decay were left upon her face and form. Death was stealing his prize away none the less surely, because he had wreathed her brow with flowers. A little longer, a little longer and this pure, noble, loving heart would throb on earth no more.

It was inexpressibly touching to witness the sweetness and gentleness of spirit which she manifested; there was no repining, no querulous complaining at her lot. The
light and loveliness of earth had no charm for her to win her hopes from Heaven. There, she would often say, was garnered up her heart; there she should meet again him, who could not come back to forgive her; there she should never hear the bitter word or feel the unkind look; there both their spirits would dwell in an atmosphere of love that would know no change for ever.

She often told me that John spoke of me in the days of their happy trustfulness, with strong and manly affection. That in all their dreams of the future I was mingled; that she was to be to me a sister, and he a brother ; and I shed such tears at her simple narration as I never can shed again. She never blamed my cousin; she never revealed the unhappy cause of their alienation, and whatever it was the grave keeps the secret well; you may listen to the waving of the tall grass that grows where she sleeps, but never a syllable comes thence. She had no love or longing for life, although she knew that each day brought her closer to the grave. A little lock of John's hair was always pressed in her hand, and she would keep her eye fixed upon it, saying, as a pang would rack her now feeble frame-"It is no matter, it brings me nearer to him."

I have seen in a lake the ice grow thinner and thinner beneath the waxing heat of the sun, dissolving every hour, wasting imperceptibly away into the water, which bore it up, and of which it had its birth. So, day after day, beneath the light and warmth which flowed upon her from heaven, the earthly fetters of her soul grew weaker and weaker, and we could see how her spirit was melting into the pure source which had so far sustained it, and from whence it sprung.

One afternoon we were gathered round her, for we knew that death was very near to her; she had sunk very rapidly of late, and we felt that any moment might be her last. She was sitting in her easy-chair, looking out towards the sinking sun. I was kneeling near her with her hands clasped in mine.
"Hugh," murmured she, " to-night I shall see John. Do you think he will forgive me?"

What could I answer?
"He will know me, and I shall know him, for I saw him last night as I shall see him again to-night. The light and glory of heaven was on his forehead like a crown."

The sobs of my uncle alone broke the stillness.
"Come nearer, Hugh, dear, for I think I am dying. Kiss me," she murmured very softly.

I bent my lips to her cold, pale brow. As I did so, I heard my cousin's name trembling upon her tongue, and, with those dear syllables faintly uttered, she dieddied with his name upon her lips, who was the first, it may be, to greet her as she entered the eternal gates.

Few ever knew what beauty and loveliness faded away from earth that day. Few ever stand where her weary heart is hushed for ever; but for me, the flight of that pure spirit left a void that time has never filled; for me earth has no spot so sacred as Mary Linley's grave.
507. A GOOD WIFE.-A good wife should be like three things; which three things she should not be like. First, she should be like a snail, always keep within her house; but she should not be like a snail, to carry all she has on her back. Secondly, she should be like an echo, speak when she is spoken to ; but she should not be like an echo, always to have the last word. Thirdly, she should be like a townclock, always keep time and regularity; but she should not be like a town-clock, to speak so loud that all the town may hear her.
508. INDULGENCE. - Whoever has watched children with care, has noticed that any passion or feeling becomes stronger by repetition. In the first instance, it is dim and feeble; in the second, it is more vivid and vigorous. By degrees it grows stronger ; and when, at length, it has become habitual, it is not only very apt and ready to return, but, like a vicious horse, it seizes the bit, and rushes forward in defiance of all control. Indulgence is the great principle of nutriment and culture to human passion. It is as the sun and rain and rich soil to vegetation.-S. G. Gooderich
509. THE WORLD IN MINIATURE.

There is a world of miniature phenomena which has never been fully recognized, in which we may see the mightier works of nature pleasingly and truthfully illustrated.

When the wind blows into the corner of a street, and whirling around, catches straw, dust, and feathers in its arms, and then wheels away, flinging the troubled atoms, in all directions-it is a miniature of the mightier whirlwind, which wrecks ships, uproots trees, and levels houses with the earth.

When a cloud of dust, on a hot summer's day, rises and flies along the thirsty road, making the passengers close their eyelids, and dusting the leaves of wayside vegeta-tion-it is a miniature of the terrible simoon, which blows from the desert sands, scattering death and devastation in its track.

When steam issues from the tea-urn, and becomes condensed in minute drops upon the window-pane-the miniature is of the earth's heat, evaporating the water, and the cold air of night condensing the vapours into dew.

When grass and corn bend before the wind, and are beaten down by its force; when the pond forgets its calm, and rises in troubled waves, casting the flotilla of natural boats that moves upon its surface, in rude disorder upon its windward shore -the little storm is a miniature of those great hurricanes which wrecked a fleet in the Black Sea, and levelled the encamp. ments of a mighty army.

When the snow that has gathered upon the house-top, warming beneath the smiles of the sun, slips from its bed, and drops in accumulated heaps from the roof-it is a miniature of those terrible avalanches which in the Pyrenees bury villages in their icy pall, and doom man and beast to death.

When the rivulet hurries on its course, and meeting with obstructions, leaps over them in mimic wrath, overturning some little raft upon which, perchance, a weary fly has alighted-it is a miniature of those rapids on whose banks the hippopotamus and the alligator yet live; and where, though rarely, man may be seen directing
his raft over the troubled current, amid the rush of débris from forests unexplored.

And when, in a basin of the rivulet, two opposing currents meet, and from a little vortex into which insect life and vegetable frayments coming within the sphere of its influence are drawn, it is a miniature of the roaring whirlpool, or the wilder maelstrom of the Norwegian seas.

Nature rehearses all her parts in mild whispers; and for every picture that she paints, she places a first study upon the canvas. Man need not go into the heart of her terrors to understand their laws. Many an unknown Humboldt, sitting by the river's side, may rejoice in the "aspects of nature," and share the bliss of knowledge with the great philosopher.-The Reason Why.
510. BACON CURING.-Itis as difficult to determine how to cure bacon as it is how to cook a potato. Most persons think that because a side of bacon turns out good with one particular pickle, that another should do the same in the like manner. The same pickle is not good for hams and bacon, with any kind of pig. This is well known to the large bacon curers both in England and Ireland, and they act accordingly. The whole difference consists in the feeding of the animal. Practical curers know, by experience and touch, the moment the pig is cut open, the quantity of salt it requires, or soda, and whether it is to be applied when the flesh is warm, or cold; or how long it should hang before the salt is applied. To give recipes for the different kinds of pickle, for the different kinds of pigs, fed in as many different manners is impossible; but one rule is a good one, that is-as soon as your pig is killed, hung up, and washed, cut off the hams, prepare the sides, and cover them with salt as soon as possible; let the hams hang for three or four days, or more if in winter. It may not be a fact generally known, that the tongues of oxen differ greatly in curing, generally when the animals have been driven some distance, or came from off the ship after a voyage, and was then killed, it requires great care to cure the tongues, and then, when boiled, if sweet, they will be stringy and hard, and the fat yellow.
511. "POUR IN KNOWLEDGE GENTLY."-Plato observed that the minds of children were like bottles with very narrow mouths: if you attempted to fill them too rapidly much knowledge was wasted and little received; whereas with a small stream they were easily filled. Those who would make young children prodigies, act as wisely as if they would pour a pail of water into a pint measure.
512. THE ONLY WAY TO PICKLE SALMON.-Take a whole fish, bone it, and cut it in pieces (good-sized square ones) ; place them in a jar with salt, allspice, and whole pepper ; then tie a bladder on the top to prevent any water getting in; put it into a saucepan of boiling water ; let it keep so for two hours, then take it out, and when quite cold, add as much cold vinegar as there is liquor, and the salmon will be delicious.
513. TO PREVENT INSECTS CLIMBING UP FRUIT-TREES.-Let a piece of india-rubber be burnt over a gallipot, into which it will gradually drop, in the condition of a thick viscid juice, which state it will retain for any length of time. Having melted the india-rubber, let a piece of cord, or worsted, be smeared with it, and then tied several times round the trunk of the tree. The melted substance is so very sticky, that the insects will be prevented, and generally captured in their attempts to pass over it. About three-penny-worth of india-rubber is sufficient for the protection of twenty ordinary sized fruit-trees.
514. PRESERVING EGGS.-The following receipt has been tried for several years with unvarying success:-To five quarts of cold water add one pound of salt and one ounce of saltpetre; boil together for about twenty minutes, and, when nearly cold, add four tablespoonsful of pounded quicklime. Let it stand three days, stiring it twice a-day. Place the eggs (which should be quite fresh) in a jar, with the small end downwards, and pour the mixture upon them. Additional layers may be added, as convenient, and from thirty to fifty eggs may be done in one jar. They will keep for months, but must not be taken out of the lime till they are about to be used, when they will be found to be perfectly fresh. The lime should cover the eggs full two inches above them.


## SKELETON PLANTS.

515. SKELETON PLANTS.-Skeleton reaves, and seed vessels of plants, form exceedingly interesting objects, and serve to illustrate the wonderful structure of plants. With patience and care, they may be produced by any person, and will afford an interesting occupation. The leaves should be gathered when they are in perfection-that is, when some of the earliest leaves begin to fall from the trees. Select perfect leaves, taking care that they are not broken, or injured by insects. Lay them in pans of rain water, and expose them to the air to undergo decomposition. Renew the water from time to time, taking carenot todamage

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the leaves. They need not be examined more than once a week, and then only to see that the water is sufficient to cover them. Give them sufficient time for their soft parts to become decomposed, then take them out, and laying them on a white plate with a little water, wash away carefully, with a camel-hair pencil, the green matter that clings to the fibres. The chief requirement is patience on the part of the operator, to allow the leaves and seed vessels sufficient time to decompose. Some leaves will take a few weeks, and others a few months; but a large panful may be put to decompose at the same time, and there will
always be some ready for the process of cleansing. When they are thorougly cleaned, they should be bleached, by steeping for a short time in a weak solution of chloride of lime. They should then be dried, and either pressed flat, or arranged into boquets for preservation under glass shades. The result will amply reward the perseverance of the operator.
516. TO CHOOSE FISH.-There is a general rule in choosing most kinds of fish. If their gills are red, their eyes plump, and the whole fish stiff, they are good; if, on the contrary, the gills are pale, the eyes sunk, and the fish flabby, they are stale.
517. DIRECTIONS FOR BOILING FISH.-All kinds of fish should be boiled in hard water, as it adds a firmness to it, and not put in till the water boils. There should be horse-radish and some salt boiled in the water with all fish, except mackerel. Care should be taken to boil the fish well, but not to let it break.
518. TO FRY FISH. (See 198).
519. TO CHOOSE TURBOT.-If good, they should be thick and plump, the belly a yellow white; if they appear blueish and thin, they are not good. They are in season the greatest part of the summer.
520. TO BOIL A TURBOT.-Make a brine with a handful or two of salt, and a gallon or more of water ; let the turbot lie in it two hours before it is to be boiled, then set on a fish kettle, with water enough to cover it, and about half-a-pint of vinegar (or less, if the turbot is small) ; put in a piece of horse-radish ; when the water boils, put in the turbot, the white side uppermost, on a fish plate ; let it be done enough, but not too much, which will be easily known by the look; a small one will take twenty minutes, a large one half-an-hour; then take it up, and set it on a fish plate to drain before it is laid on the dish. Sauce, lobster sauce, \&c., white sauce.
521. WHITE SAUCE.-An anchovy, a glass of sherry, a bit of horseradish, two or three blades of mace, an onion stuck with cloves, a piece of lemon-peel, a quarter of a pint of water or more; simmer these till reduced to the quantity wanted; strain it, put in two spoonsful of milk, a large piece of butter, with some flour mixed well in it ; keep stirring it till it boils; add a little
catsup, squeeze in some lemon-juice when off the fire; more wine may be added if agreeable.
522. LOBSTER SAUCE.-Take a lob. ster which has a good deal of spawn, pull the meat to pieces with a fork ; do not chop it; bruise it and the spawn with the back of a spoon ; break the shell, boil it in a little water to give it a colour, strain it off; melt some butter in it very smooth, with a little horseradish, and a very little cayenne; take out the horseradish, mix the body of the lobster well with the butter, then add the meat, and give it a boil, with a spoonful of catsup, or gravy if agreeable. Some like it only plain butter.
523. TURBOT BOILED IN GRAVY. -Take a middling-sized turbot, let it be well washed, and wiped very dry ; then take a deep stewpan, put in the fish, with two bay leaves, a handful of parsley, a large onion stuck with cloves, some salt and pepper ; heat a pint of sherry boiling hot, and pour it upon the turbot, then strain in some very strong veal gravy, more than will cover it; set it over a stove till it is near enough, and then remove it on one side, that the full strength of the ingredients may be infused into it; when it is quite done, put it on a hot dish, strain the gravy into a saucepan, with some butter and flour ; pour some over the turbot, the rest in a sauce boat
524. PLAICE, DABS, and FLOUNDERS, may be dressed in the same way.
525. TO FRY A TURBOT PLAIN.It must be a small turbot; cut it across as if it were ribbed; when it is quite dry, flour it, and put it in a large fryingpan with boiling lard enough to cover it; fry it till it is brown, then drain it, (or with sauce made thus) ; clean the pan, put into it sherry almost enough to cover it, anchovy, salt, nutmeg and a little ginger; put in the fish, and let it stew till half the liquor is wasted; then take it out, and put in a piece of butter rolled in flour and a minced lemon; let them simmer till of a proper thickness; rub a hot dish with a piece of eschalot; lay the turbot in the dish and pour the sauce over it.
526. TO CHOOSE SALMON.-Salmon, if fresh, the flesh is of a fine red, but particularly so at the gills; the scales should be very bright, and the fish very stiff.
527. TO BOIL SALMON.-It requires
to be well boiled; a piece not very thick will take half-an-hour; boil horseradish in the water, fried smelts may be laid round it ; garnish with horseradish, and sliced lemon, anchovy sauce, and plain butter.
528. TO BROIL SALMON.-Take some slices cut from a fine salmon, wipe them clean and dry; melt some butter smooth and fine, with a little flour and salt, put the pieces of salmon into it, and roll them about that the butter may cover them all over; then lay them on a nice clean gridiron, and broil them over a clear but very slow fire ; while the salmon is broiling, make sauce with a couple of anchoveys washed, boned, and cut into small pieces, a leek cut into three or four long pieces; set on a saucepan with some butter and a little flour, put in the ingredients, with some capers cut small, some pepper and salt, and a little nutmeg; add to them some warm water, and two spoonfuls of vinegar; shake the saucepan till it boils, and the sauce is done; when the salmon is done on one side, turn it on the other till it is quite done; take the leek out of the sauce, pour it into a dish, and lay the broiled sulmon upon it.
529. SALMON IN CASES.-Take a piece of salmon, cut it into small cutlets, season them with pepper, salt and nutmeg; take as many half sheets of paper as cutlets, and put a piece of cutlet in each fold of the paper that nothing can run out; pour a little melted butter over the paper, and then strew some crumbs of bread over the butter, put them in a tin oven before the fire, but take care the papers do not burn. When they are done enough, serve as they are without sauce.
530. BAKED SALMON.-Take a piece of salmon, and cut it in slices an inch thick; make a forcemeat, as follows:-Take some of the flesh of the salmon, and the same quantity of the meat of an eel, with a few mushrooms; season it with pepper, salt, nutmeg, and cloves; beat it all together till it is very fine; boil the crumb of a penny roll in milk; beat with it four eggs till it is thick, let it cool, and mix it altogether with four raw eggs; take the skin from the salmon, and lay the slices in a dish; cover every slice with the forcemeat, pour some melted butter over them, and add a few crumbs of bread, lay the crust round the dish and stick oysters round it ; put it into
an oven, and when it is of a fine brown, pour over it a little melted butter, with come port wine boiled in it, and the juice of a lemon.
531. TO POT SALMON.——Take a salmon that is quite fresh ; scale, wash, and dry it well, slit it up the back, and take out the bone; mix some grated nutmeg, pepper, mace, and salt, and strew over the fish, let it lie for two or three hours, then lay it in a large pot and put to it half a pound of butter; put it in an oven, and let it bake an hour; when it is done lay it on something flat, that the oil may run from it, then cut it to the size of the pots it is to be put in, lay the pieces in layers till the pots are full, with the skin uppermost; put a board over it, lay on a weight to press it till cold; then take the board and the weight off, and pour over it clarified butter, it may be sent to table in pieces or cut into slices.
532. TO CHOOSE SOLES. - To be good, they should be thick and firm, the belly of a fine cream colour; if they incline to a blue white and the body flabby they are not good. Soles should be boiled in salt and water, anchovy sauce.
533. TO STEW SOLES.-Take the fish from the bone, cut each into eight pieces; put into a stewpan a quart of stock gravy, a quarter of a pint of sherry, some white pepper pounded, grated nutmeg, a piece of lemon peel ; stew these together for nearly an hour, add some milk, a piece of butter mixed with flour, keep the sauce stirring till it boils; put in the fish, stew it for a quarter of an hour, take out the lemon peel, squeeze it in some lemon juice; the fish may be stewed whole in the same sauce, and it more convenient, cut the fish as before directed, and make a little gravy with the bones and the head.
534. TO FRY SOLES.-Skin them and cut off the fins, roll them in a cloth, dredge them with flour, rub them over with the yolk of an egg, shake bread crumbs over them, and fry them in boiling fat. (See 198-)
535. A FRICASSE OF SOLES.-Fry them a nice brown, drain them, and make a few balls with a small sole boned and chopped, a little grated bread and lemon peel, parsley chopped, pepper, salt, nutmeg, yolk of egg, a piece of butter; fry these; thicken some good gravy (and some port
wine, not too much) with a little flour, boil it up; add cayenne catsup, and lemon juice ; lay in the fish and balls, simmer them a few minutes, garnish with lemon.
536. TO CHOOSE MACKEREL-If a mackerel be perfectly firm and bright and glossy to the eye, it is fresh. If stale, that brightness will have disappeared, and it will be limpid and wrinkled.
537. TO BOIL MACKEREL - Boil them in salt and water, a very little vivegar; fennel saure.
538. FENNEL SAUCE.-Boil a bunch of fennel and parsley, chop it small, stir in into some melted butter.
539. TO FRY OR BOIL MACKEREL. -They may be fried or broiled, and are exceedingly good either way, stuffed with some bread crumbs, parsley chopped, lemon peel grated, pepper, salt, and nutmeg mixed with yolk of egg; anchovy sauce and fennel sauce. They are very good split open, the heads cut off, peppered, hung up for four or five hours, and then broiled, with fennel and parsley scalded in melted butter for sauce.
540. TO SOUSE MACKEREL.-Let them be washed and cleaned, take out the roes, boil them in salt and water; take them out when done enough, and lay them in a deep dish; pour away half the liquor they were boiled in, and add to the rest of the liquor as much vinegar as will cover them, with two or three bay leaves. They should lie two or three days before they are eaten.
541. TO CHOOSE TROUT.-It is a very fine fresh water fish; all the kinds of this fish are excellent, but the best are the red and yellow trout. The females are considered the best, and are known by having a less head and deeper body than the male ; their freshness is known by the same methods that have been already mentioned for other fish.
542. TO BOIL TROUT.-Boil them in vinegar, water, and salt, a piece of horseradish; white sauce, anchovy sauce, plain butter.
543. TO FRY SMALL TROUT.-Dry them, rub them with yoke of egg, flour, or strew fine crumbs of bread on them; fry them; anchovy sauce.
544. TO BROIL TROUT.-Clean and wash the trout, dry them well in a cloth,
tie them round with pack-thread from top to bottom, to keep them entire and in shape; then melt some butter, with a good deal of salt; pour it all over the trout till it is perfectly covered, then put it on a clear fire at a great distance, that it may do gradually; sauce, wash and bone an anchovy, cut it very small, chop a large spoonful of capers, melt some butter, with a little flour, pepper, salt, and nutmeg, and
half a spoonful of vinegr. half a spoonful of vinegar; when the trout is done, lay it in a warm dish, and pour the sauce over it.

## 545. TO CHOOSE LOBSTERS.-Their

 tails, if fresh, should be stiff, and pull up with a spring; if stale, the tail will be flabby. This direction is for boiled lobsters. It is better to buy them alive, and boil them; but they will sometimes live till they are quite deteriorated. If they have not been long taken, the claws will have a quick, strong motion upon squeezing the eyes; the heaviest are esteemed the best. The cock lobster is known by the narrow back part of his tail; the two uppermost fins within his tail are stiff, but those of the hen are soft and broader. The male, though generally smaller than the female, has the highest flavour in the body; his flesh is firmer, and the colour, when boiled, is redder.546. TO STEW LOBSTERS.-When the lobsters are boiled, pick the meat clean from the shells, take a pint of water, a little mace, a little wholepepper, and the shells of the lobster; let them boil till all their goodness is out, strain off the liquor, and put it into a saucepan; put in the lobsters, with a piece of butter rolled in flour, a spoonful or two of sherry and a little juice of lemon; let them boil and lay them in the dish.
547. A LOBSTER SALAD.-Take a fine lobster and pick it thoroughly out, and cut it up, not too small, two good lettuce, washed perfectly clean and wiped quite dry with a napkin ; then break them into picees about three quarters of an inch square, have three eggs boiled hard and cut into square pieces, eight or ten slices of beetroot and a stem or two of mint; mix them altogether and pour some dressing over it made thus :-Take half a pint of the best Lucca oil and three new laid eggs and beat them together, add two table spoonsful
of mixed mustard, half a pint of melted butter-(that left from the previous day's dinner will do)-a pinch of cayenne, some salt, and half a pint of vinegar. If this is put into bottles and corked down tight it will keep for months, and will do as a dressing for all kinds of salads.
548. THINGS IN SEASON IN JUNE. -Meat.-Lamb, Beef, Mutton, Veal, Buck, Venison.

Poultry.-Green Geese, Ducklings, Turkey Poults, Plovers, Leverets, Rabbits, Fowls, Pullets. Chickens.

Fish.-Turbot, Mackerel, Trout, Carp, Tench, Pike, Salmon, Soles, Herrings, Smelts, Eels, Mullets, Lobsters, Cray Fish. Prawns.
Vegetables.-Cucumbers, Peas, Beans, Kidney Beans, Asparagus, Cabbages, Cauliflowers, Artichokes, Carrots, Turnips, Potatoes, Radishes, Onions, Lettuce, all Small Salad, all Pot Herbs, Parsley.

Fruir.-Strawberries, Cherries, Currants, Goosberries, Apricots, Apples, Pears.
549. TO MAKE PERRY.-Very little perry is now made, in comparison to what was made half a century since, as the fruit finds a more ready sale at market. The flavour entirely depends on the kind of fruit. Take a quantity of full-ripe, juicy pears, without a bruise, the pips quite black; grind them, it is immaterial how, in a malt mill, if convenient, then press them in a regular screw-press, if you have it, if not, in a strong box, full of small holes, covered inside with some hair cloth, or, for want of that, canvas; have a piece of wood which fits inside as the top of the box, fill the box with the ground pulp, place a weight on the top, or with a lever press it down until all the juice is extracted, which runs into a tub below. The residue is good for pigs, or, when dried in an oven and broken up small, for poultry. Thus far the results of all perry makers are the same; now for the difference. Some allow the juice thus extracted to remain twelve hours in the tub, others eighteen, others twentyfour, which difference depends upon the fruit. After having remained in the tub sufficiently long to deposit its sediment, the juice should be racked off into a clean cask, by means of a funnel, in which there should be a small hair sieve to prevent any floating
particles getting in. The cask should then be placed in a cool, clean cellar (as clean and as free from smells as a drawing-room), and at the temperature of about sixty deg. In addition to this cask, there should be another small one ready to fill up the ullage of the large one; the cask must be bunged up, and a spile-hole made, in which place a spile or spiggot. This must be taken out, from time to time, to see if fermentation commences, and when it does, the juice must be racked off into another clean cask, and each time fermentation takes place, to proceed in the same way, filling up the ullage from the small cask, which should, if possible, have been of the previous year's make; if the fermentation should continue too long, burn a match in the cask previous to racking, or a burnt oyster-shell will do. The sediment each time may be strained through a flannel bag, and the liquor added to the cask. In about five months it may be bottled; but should it prove cloudy, clear it with a little isinglass dissolved in a little perry; or should the colour be too dark, a quart of milk and a quarter-of-an-ounce of isinglass will correct it. Bottle, cork, tie, and cement the corks, lay them on their side, and in six weeks they are fit for use. For good bottling perry, add to it, when fit for bottling, for every hogshead of perry, four gallons of pale brandy at proof, and not less than twenty pounds of lump-sugar boiled to a crack, or the same weight of barley-sugar ; wire, and tie the corks, cover with tin foil, and in three months it is fit for use. Both the above should be buried in plenty of sand.
550. APPLE CAKE.-Peel the apples and slice them, and put them on the fire, with as little water as will prevent them catching; when reduced to quite a pulp, pass through a sieve. To a quart of pulp add three-quarters of a pound of loaf sugar, but sour green apples, which make the strongest and the best, require a pound ; add the peel and juice of half a lemon. Boil for an hour till it thickens, then put in a mould and turn out when cold. Serve custard round it or cream.
551. RAINWATER TAPS.-Everyone has experienced the annoyance crused by water taps which are exposed to the weather in winter. After being frozen a few times
they leak constantly, and get an inclination to stick fast in certain positions. The evil is caused by the closed chamber which is formed by the plug of the tap when shut, which, being full of water, is expanded with irresistible force when the water freezes, and bulges out both the plug and the sides of the tap. This effect may be preverted by using what the plumbers term a "downright tap," that is, a tap constructed on the principle of the spigot and faucett, which delivers the liquid down through the bottom of the plug. These may be exposed to the weather twenty years without injury. If they cannot easily be procured you may prevent the above effect by drilling a hole through one of the cheeks of the plug, or right through both sides of the tap while it is shut, so that the water in the chamber may escape.
552. WHITE SAUCE FOR POULTRY OR BOILED VEAL.-Mix three tablespoonfuls of flour in one pint of milk or cream, with a little salt, pepper, and nutmeg, and a slice or two of leman; keep stirring till it boils, then take out the lemon, pour it over the fowl, or veal, and garnish with slices of lemon. This is also excellent to warm up poultry or veal in.
553. THE BEST ONION SAUCE.Take six moderate-sized onions, and boil them till quite soft, changing the water two or three times; then pass them through a sieve, add half-a-pint of milk or cream, two ounces of butter, a teacup full of crumbled bread, a little salt and nutmeg, and boil it for a minute or two. Flour may be used instead of bread, if preferred.
554. A LIGHT PLAIN CAKE.-Six ounces of ground rice, the same of flour, the yolks and whites of nine eggs, beat separately, one pound of loaf-sugar finely powdered. Whisk the sugar and eggs for nearly an hour, then add the rice and flour; butter well some white paper, and put round and at the bottom of the tin it is to be baked in, and bake in a slow oven. No doubt it is generally known, that a good way of judging if a cake is done through is to run a knife through the middle, if it comes out quite clean it is baked enough,
555. CABBAGE SALAD.-Take a nice hard-hearted white cabbage; trim off the outside leaves, and cut down the centre of it ; take out the large part of the stalk ; lay
the flat side downwards, and cut it right through into strips about a quarter of an inch thick; when you have done that separate it, and place it in your salad-bowl; season it with pepper and salt, and five table-spoonfuls of oil and three of vinegar ; well stir it about for a minute or two. It is then ready for use, either with hot or cold meat. The cabbage is best after a frost.
556. WALNUT KETCHUP.-Green walnut husks placed in a deep earthen-pan, with layers of salt between them; let them stand a fortnight or three weeks; then pour off the liquor, and simmer and skim it ; put to every two quarts an ounce-and-a-half of whole ginger, the same quantity of allspice, an ounce of old black pepper, and half-anounce of cloves; boil slowly about half-anhour, and when cold bottle it, and keep it in a cool place.
557. PRESERVED PUMPKIN is very good if made as follows :- Cut the flesh into thin slices ; place them on wicker-work or wire drainer, and put them into a slow oven till all the watery part is dried up. In the meantime, boil some bruised ginger in water, with a little Cayenne, so that the liquor is strong of the ginger; whilst hot, put in the slices of pumpkin; let them remain two days, take them out, and dry them as before. Now boil up the liquor ; to every pint add one pound of loaf sugar; give it a boil, remove the scum; when hot add the pumpkin; put it into jars, tie it over with bladder, and keep it in a dry place. One pound of sugar to one pound of pumpkin. These slices may be cut into diamonds, hearts, or any other shape, and dipped into caramel, and thus make a pleasing ornament for the dessert. They may likewise be coloured green and red by colouring the water in which the ginger is boiled, and afterwards the syrup, The pumpkin should not be over ripe.
558. RESTORATIVE JELLY FOR INVALIDS.-Take two ounces of isinglass; one ounce of gum arabic; and one ounce of sugar candy. Put these into half-a-pint of spring water, and let them remain eight hours; then simmer over a slow fire, or in a jar in the oven until dissolved. Add half-a-pint of good sherry; and, when nearly cold, flavour with nutmeg or cloves. This is excellent.

## 559. WATERING PLANTS.

Last week we went into a garden in the neighbourhood of London, between 7 and 8 o'clock in the morning, and to our great surprise found all the flower-beds had been plentifully watered with an engine. We could hardly believe our eyes; but we soon discovered that this was a favourite whim of the lady of the establishment, to lay the dust, as she said, and make the plants look fresher-there being no dust to hurt anything, and the latter object having been fully secured by a plentiful dew. This instance of unnecessary, if not pernicious, labour, reminded us that many amateur gardeners are very ignorant of the first principles of horticulture; and, among others, of the right use of water. We may select two gardens almost anywhere which will illustrate what we mean; for while the owner of one is always draining his cisterns and tiring himself to water his garden, it really looks worse than that of his neighbour, who scarcely waters at all.
There are always lessons plainly taught to the observer of nature on all subjects of practical use to man, and this subject of watering among the rest. The farmer sows ten acres of turnips or of clover, both small seeds, rolls them in, and leaves them to Providence. They come up and are watered by the dews of heaven, and by the occasional rains, and as a rule, they flourish and accomplish the purposes for which they are deposited in the soil. Often droughts occur, and the young plant seems ready to perish, and we wonder by what marvellous contrivance they are able to derive from the dusty clods in which they grow moisture sufficient to keep them in being. But they do grow, nevertheless, although no water-pot or garden-engine ever approaches their habitats. Now the lesson taught to gardeners by these natural operations on a large scale is this-That God has made provision in the broad expanse of nature for the smallest seed and the tenderest plant, so that in ordinary years they shall germinate and produce boughs and fruit. Let us then take the admonition, and believe that water-pots and engines are only intended for extraordinary and artificial arrangements in the culture of the ground, in that, generally, the soil and the sur-
rounding air will give to the most delicate seedling all the moisture it needs.

We have mentioned artificial arrangements, and this brings us to the object of the present paper. Gardening is, to a great extent, a matter of art, and therefore its operations allow of some deviation from the mode of doing things which goes on in nature on a large scale. A crop may require to be hastened on, and water may be necessary ; in gardens transplanting is constantly had recourse to, and a plant removed from its original soil to another will need a larger supply of moisture than before, until it makes new roots. Then there is the pot-culture of flowers and fruits, and a growth produced under glass in pits, as cucumbers and melons. As these are so many deviations from the ordinary course of nature, water must be applied in such cases, with art and judgment, as individual plants may need it. But vegetation in its natural state in the open air is seldom benefited by artificial watering, for the reasons given by Dr. Lindley, in his "Theory and Practice of Horticulture" (1855), p 171. He says:-"More commonly recourse is had to the operation of simple watering, for the purpose of maintaining the earth at a due state of humidity, and to render plants more vigorous than they otherwise would be ; an indispensible operation in hothouses, but of less moment in the open air. It is, indeed, doubtful whether in the latter case it is not often more productive of disadvantage than of real service to plants. When plants are watered naturally, the whole air is saturated with humidity at the same time as the soil is penetrated by the rain; and, in this case, the aqueous particles mingled with the earth are very gradually introduced into the circulating system, for the moisture of the air prevents. a rapid perspiration. Not so when plants in the open air are artificially watered. This operation is usually performed in hot dry weather, and must necessarily be limited in its effects; it can have little, if any, influence upon the atmosphere. Then the parched air robs the leaves rapidly of their moisture, so long as the latter is abundant ; the roots are suddenly and violently excited, and after a short time, the exciting cause is withdrawn by the momen-
tary supply of water being cut off by evaporation, and by filtration through the bibulous substances of which soil usually consists. Then again, the rapid exaporation from the soil in dry weather has the effect of lowering the temperature of the earth, and this has been before shown to be injurious; such a lowering, from such a cause, does not take place when plants are refreshed by showers, because at that time the dampness of the air prevents evaporation from the soil, just as it prevents perspiration from the leaves. Moreover, in stiff soils the dashing of water upon the surface has, after a little while, the effect of 'puddling' the ground and rendering it impervious, so that the descent of water to the roots is impeded, whether it is given artificially, or by the fall of rain."
If these observations are carefully digested, they will cause our readers to abstain from the waste of labour in watering theirgardens. On another occasion we shall return to the positive part of the subject.-The Field.
560. FOR A SCALD.-Cold water applied immediately, and afterwards spirits of wine.-W. C.
561. FOR A BOIL.-Butter and oat-- meal mixed to a rather thick paste, and laid on. -M. M.
562. RECEIPT OF SIR RICHARD JEBBS (Very strengthening).-One ounce of rice, one ounce of sago, and one ounce of eringo root boiled in two quarts of water very slow, till it comes to one quart, then strain it off. When cold, take an equal quantity of this jelly and milk, and boil it together for supper, with a bit of toasted bread. In the morning, one spoonful of jelly in a little milk, made hot, and poured upon it, taken an hour before rising. If milk does not agree substitute barley-water.M. K.
563. PRESERVATION OF WATER. -Water has been preserved, it is said, for seven years, by adding to it oxide of manganese in the proportion of $1 \frac{3}{4}$ to 250 , and agitating the liquid once a fortnight.
564. VINEGAR FROM APPLES. Take a bushel of sour apples, cut them up, or pound them; place them in a large tub; they will shortly begin to ferment; then add some water, which they will soon absorb; keep adding, day by day, as much water as
they will absorb. At the end of a month strain off the liquor into a cask; to every gallon of liquor add half-a pint of vinegar, hot, that has previously been boiled, and reduced from one pint; let it remain for six weeks, and there is an excellent vinegar.
565. AN INCOMPARABLE APPLE PUDDING.-Eight ounces of apples when grated ; six or eight ounces of sugar ; six ounces of butter; the juice and rind of a lemon, grated; five eggs, leaving out two whites, the eggs to be well beaten, and the ingredients well mixed together; put a paste round the dish, and bake it.
566. CURTAINED BEDSTEAD.-It is said, that a bird suspended near the top of a curtained bedstead, in which people sleep, will generally be found dead in the morning from impure air.
567. PLUM FOOL.-Take one quart of ripe plums ; boil them in some water; when quite soft, pass them through a coarse sieve ; then add to the pulp half-a-pound of sugar; boil it, and pour it when hot, into one quart of cream ; serve it up cold, in custard-glasses, either for dessert or with the pastry. The stones broken, and the kernels removed, chopped up, and sprinkled over the top is an improvement.
568. COOKING CUCUMBERS.-Cut the cucumber open, and remove the seeds; stuff it with minced beef and bacon, and then bake it. When sufficiently cooked, which may be known by its softness, remove it; now peel the rind off, and serve it with gravy. Vegetable marrows cooked in the same way are equally delicious.
569. TO CLEANSE WATER BOTTLES. -The most effectual way is to rinse them with a small quantity of water with raw potato cut up small in it; the glass will bear a gloss which no shots or brushes can produce.
570. A QUERY.-Two boys amusing themselves at "snatch-apple," in a room thirteen feet high, find that by standing twelve feet from each other, the apple, which is suspended from the ceiling by a string, and in a right line between them, when put in motion, just touches each of their watery mouths. Required the area of the section described by the string and apple; the prependicular height of each boy's mouth from the ground being five feet?

## 571. PHENOMENA OF JUNE.

Summer has come, and strews buttercups and daisies as plentiful as the merry thoughts of childhood. Let us wander again into the fields, and resume our promised study of our dear old favourites.
572. We have seen that the claisy is not a single flower, but is composed of a multitude of florets grouped together upon a receptacle or thickened end of the flowerstalk, and that it was hence named a composite flower.
573. The central flowersare termed florets of the disk; in them the corolla is very little developed, but the seed-producing organs are complete. On the other hand, the flowers at the circumference, which give the appearance of rays, and are hence called florets of the ray, are developed at the expense of the reproductive organs (stamens and pistils), both sets of which are usually absent. Thecorolla in thelatter appears like a white strap, or ligula, and such florets are hence named ligulate, or strap-shaped. In the dandelion (a near relation of the daisy) it will be found that both the flowers of the ray and those of the disk are composed of ligulate flowers, that is to say, the corolla is developed. The common chicory, or succory, belongs to this sub-order, Chicoracee, which has this pecularity :-All the plants contained in it have a kind of milky juice, which, when concentrated, is found to possess narcotic properties. Those plants of the composite order which have ligulate flowers only in the ray, and tubular ones in the disk, are called radiate flowers, or corymbifera. All the plants in this order, to which belong the sunflowers, daises, chamomiles, wormwood, marigolds, asters, \&c., have the bitterness which is common to all composite plants, combined with a resinous principle of a stimulating character: few plants belonging to this order are edible.
574. It will be observed, that by such a classification of plants as that which has has been described, plants of similar characters are brought together; plants which possess similar properties as well as similar organisation, appearance, \&c.
575. Let us now note, further, the peculiarities of the buttercup, having a regard to the classification of the plant and its rela-
tions. Its parts have been curiously described in a previous paper. When such an organisation is found in a plant in which the stamens are numerous, and rise from the disk beneath the carpels (which are the great coverings of the seed in the centre of the flower), such plants are placed by the Natural System of Jussieu in the order of Ranunculacece, or Ranunculus tribe. All the plants agreeing in these general characters, agree also in their medical and other properties. The juice is constantly acrid and nauseous, and in many of them is found a narcotic principle. Hence they are generally uselessasfood even for cattle. The Ranunculus tribe agree moreover in their form of growth, being either herbaceous or shrubby, never assuming the more dignified form which we call "a tree." The Hellebores, whose poisonous properties are notorious, and the "deadly aconite," belong to this order.
576. From this it will be seen that the Natural System founds its classification, not upon any single organ or class of organs, but upon the minute anatomy and physiological peculiarities of the whole growth; and that structure is so closely allied with quality, that the same medicinal or edible properties are found more or less in all the plants grouped together.
577. The system of Linnæus, known as the Artificial or Sexual system, is founded on what are called the sexes in plants-that is, on the number, situation, and relation of the stamens and pistils. The number or positions of the stamens points out the class, while the orders are founded upon that of the pistils. It is therefore extremely easy to discover the Linnæan class and order of any flower, whose parts are sufficiently large to be seen with the unassisted eye; but a series of difficulties then meet the student, who finds that he has to observe a number of other peculiarities of form, \&c., before he can learn the name of the particular plant under examination. When, however, he has learned the name of the plant, the young botanist has learned little or nothing more, for in the sexual system, plants totally different in structure and properties are brought together; nor could he predict of any other plant which he had never before seen, what would be its probable qualities
and habits. Moreover, the sexual system is uncertain, as the number of stamens from aecidental circumstances differ in the same genus, and occcasionally even in different blossoms on the same plant. It is evident therefore, that if we desire to study the beauties of the vegetable kingdom systematically, we shall do so with more advantage by adopting the System of Jussieu than that of Linnæus. To quote the words of an eminent botanist (John Lindley), "the system of classification invented by Linnæus was altogether worthy of the reputation of that great man, considering the state of science at the time when he lived; and that it effected much temporary good may perhaps be conceded; but the Linnæan system is superficial to the greatest possible degree; it has a manifest tendency to render those who employ it superficially also; it leads to a mere knowledge of names instead of things; and it does not lead to the application of Botany to any one useful purpose."
578. If, on the one hand, the Linnæan system appears an easy and simple mode of studying the floral beauties of creation, it fails to afford the pleasure which is derivable from that intimate knowledge of every plant which is the result of a practical acquaintance with the Natural system which -

## Makes a friend of every flower we see,

The humble shrub or graceful bending tree."
579. SUGAR BEER.-As many of our cottage readers may not be able to procure brewing apparatus, and as we wish that every labourer who requires beer may be able to brew his own, we will give him a recipe for making an excellent and wholesome beer, out of sugar and hops, with no other brewing apparatus than a washing copper, a hair seive, and a cask; and if he closely follows all our directions, we may rely on having some good wholesome beer that will never turn acid in any weather, 1. Then we will suppose he wishes to have ten gallons of tolerably strong ale at eightpence a gallon; then, let him boil one and a-half pounds of good hops for ten minutes, and no longer, in eleven gallons of water (the softer the water the better); then
place the ten gallon cask endways upon its place the ten gallon cask endways upon its stand, with the bung-hole open at the top; then strain the boiled water and hops through the hair or cloth seive on to the
top of the cask, so that it may run into it. Whilst you are doing this, gradually place fourteen pounds of fourpenny sugar, (the strong foots is the best; pray avoid the light-coloured weak sugars) on the top of the cask; the hot liquor will dissolve it, and form the wort. If any sugar remains undissolved, put it through the bung-hole. You will have some liquor over, when the cask is full, you will require this to fill up with, as the wort shrinks by cooling and by fermenting. When the liquor is nearly cold, add to it a pint of good yeast. Fermentation speedily commences, and will continue for about three weeks. Then, in order to fine it, draw off about a quart of the beer, and dissolve in this quart by boiling half-an-ounce of isinglass. Let this get quite cool (otherwise it will set the beer fermenting again), and return it into the cask, this fines it, and then in a week or so it will be fit to drink. Whilst the fermentation is going on, keep the cask rather more then full; let the bung remain lightly placed over the bung-hole, and remove the yeast once a day. The cock should be placed about two inches from the bottom of the cask to avoid drawing off the sediment. 2. We will next suppose you in. tend to have ten gallons of good table-beer at fourpence per gallon, for early drinking. Then boil ten ounces of hops for half-an. hour, and use seven pounds of sugar as before. You may begin to drink this in ten days or a fortnight. 3. If you wish a still weaker beer at two-pence per gallon, proceed as before stated in recipe No. 2; using only three ounces of hops, and fourpounds of sugar. - Extracted fiom John. son's Farmer's Almanack for 1854.[Examined.]
580. TO DRY SALMON.-Rub your fish with common salt, and hang it to drain twelve hours if a large fish. Take two ounces of saltpetre, one ounce of bay salt, and two ounces of coarse sugar. Mix them well together, and rub your fish with it. Let it lie twenty-four hours, then put a stick across it, and hang it up to dry. If a small fish, twelve hours will salt it. The head is taken off, and the fish split open to the skin of the back. Cut the fish in slices; wrap it in paper, butter, and broil it. A Scotch receipt pronounced "excellent." -
M. K. M.

## 581. PREPARING STARCH FROM POTATOES.

Thoroughly wash the potatoes. It is unnecessary to peel them, unless a very superior article is required. Rasp them to a fine pulp with a common bread grater; such as may be procured for $5 \frac{1}{2} \mathrm{~d}$., or may be made by punching a piece of tin with a nail. The more finely the pulp has been rasped, the more starch will be obtained. Place some of the pulp (say about a quarter of a pailful at a time) in a pail. Fill the pail with water and stir up the whole well, in order to work the starch out of the pulp. The water will soon become thick from the quantity of starch it will hold in suspension. Pour the contents of the pail (before it has time to settle) upon a horse-hair or other sieve, placed over a large tub. The water will readily pass through the sieve holding most of the starch in suspension, whilst the pulp remains behind, and may be emptied from the sieve into another pail, to undergo a second or a third washing. This plan is better than putting the pulp first on the sieve and then pouring water upon it. As small portions of the pulp often find their way through the sieve, they may be removed at once by allowing the water to fall upon a loose coarse cloth stretched over the tub; but in this case the water must be continually stirred whilst it is filtering through the cloth, otherwise the starch is apt to clot, and fill up the passages. The starch will rapidly subside in the tub, and in less than ten minutes there will be a compact layer formed at the bottom. But as the finest particles remain suspended in the water much longer than the rest, during this first part of the process, it is advisable to let the whole stand for at least half-an-hour, when the water may be poured off. The starch thus procured should be washed at least once or twice more, by filling the tub with fresh water, stirring it up well, and then allowing it to settle again, which it will now do very rapidly ; and as soon as the water above it is clear, it may be poured off. The starch, on being removed from the tub, may be spread out in thin layers to dry, upon cloths, which may be changed and dried before the fire once or twice a day. But the starch itself
must not be exposed to any great heat, and even the temperature of boiling water will change it, while it is wet, into a mass of dough. As the process of drying is tedious, and the method of spreading out the flour troublesome, it will generally be advisable to adopt a method which has been found to be perfectly efficacious, and which gives very little trouble or inconvenience. The starch may be collected into bags of linen or calico, and these hung up in a warm or airy situation. The water then drains from the starch, which gradually dries without injury. The bags should be taken down in two or three days and pressed and shaken, in order to break the lumps into which the starch may have collected, and then hung up again. Temporary bags may readily be made out of table-cloths, sheet, or pillowcases. When the starch is thoroughly dry, it will keep for any number of years in bags, jars, or casks. Mice or mites do not touch it. The starch may be used under any of the forms to which arrow-root, sago, or tapioca, are applied; and it is well understood that a very high per centage of what is sold in the shops under the name of arrow-root, is nothing more than this very potato starch. It is also passed off in London under about a dozen different names, as an important and nutritious article of diet.

To prepare a cup in the manner of arrowroot, take about a tablespoonful of the flour, and add a little cold water to it, and stir it up to the consistency of cream. Now pour on it water absolutely boiling (for if cooler it will not answer), and keep stirring it till the cup is nearly full, when it will suddenly pass to a transparent pastelike jelly. This jelly is nearly tasteless, but may be rendered palatable in several ways. By adding salt and a small piece of butter it proves a grateful dish to some. With sugar and nutmeg it is extremely pleasant to most palates, and more especially so if a little white wine is added to it. A small quantity boiled with milk makes a very nutritious and agreeable dish. It will also serve for thickening soups. Prepared in the manner of ground rice it makes excellent pudding, and a variety of cakes can be made from it. A large cup full of the jelly may be prepared in less than ten minutes from a single raw potato. It takes not two minutes to wash and grate it ; not a minute
to stir the pulp in water and pass it over the sieve. If the strained water be then left to stand for six or seven minutes and then poured off, a firm layer of the starch will already have settled, and if this be stirred up whilst boiling water is poured upon it, a cup may be presently filled with a mass of most excellent jelly. It would be better to re-wash the starch and allow it to settle again, as it will not have been thoroughly cleansed from the crude juice of the potato which imparts a flavour to the jelly.
582. FOR A COUGH.-Syrup of squills, syrup of white poppies, syrup of horehound, and clarified honey, in equal portions. A teaspoonful to be taken in a little warm water three times a-day.-Tried, and recommended by W. P. C., Norley.
583. ANOTHER COUGH RECIPE.Take one ounce paregoric elixir, one ounce oxymel squills, one ounce syrup of red poppies, two ounces strained honey, one drachm laudanum. Mix. A teaspoonful to be taken when the cough is troublesome. -A. W. J.
584. HAIR WASH.-There is a recipe in Enquire Within (2054) composed of camphor and borax. I have known it used, and, after a frequent use, the hair has been rendered quite brittle, and snapped in pieces. The Cause-Camphor, if applied locally for any length of time to any delicate surface, acts as an irritant ; it irritates the skin, and the roots of the hair, and, therefore, causes the hair to loose its nourishment and hold, and then it falls off. Borax is a sub-astringent, and acts nearly in the same way as camphor; and a very weak solution of it cleans the hair from dirt and grease, as it is a bi-borate of soda. It is a wash that is very much used by all classes ; and has been, and is, the cause of many bald heads.

## 584.* Wash for Cleaning and

 Promoting the Growth of the Hatr. -Take of distilled vinegar two ounces; salt of tartar, two drachms; spirit of lavender, half-an-ounce; spirit of rosemary, one ounce ; spirit of nutmegs, half-an-ounce; essence of the essential oil of almonds, one drachm; essence of violets, one drachm ; pure spring water, twenty, ounces. Mix, and bottle for use. It is not only the best wash for cleaning, strengthening, and promoting the growth of thehair, but it is a cooling and a refreshing perfume.-J. S. S.

## 585. TO REMOVE SUPERFLUOUS

HAIR.-If you pull the hair out by the roots from those places which it disfigures, there are numerous roots ready to start througu the skin. Old authors recommend depilatories in great variety. The principle of these methods consist in rubbing upon the part from which the hair is to be removed, leaven, parsley water, juice of accacia, the gum of ivy, or of the cherry tree, dissolved in spirits of wine, \&c. Madame Elisi Voiart recommends a few drops of muriatic acid distilled with rectified spirits of wine, to be applied with a camel-hair pencil.
586. PICKLED SALMON.-Take a salmon about twelve pounds; gut it, and take off the head, and cut it across in what pieces you please, but do not split it. Set on your fish-pan with two quarts of water, and three quarts of ale, half a pound of bay salt, and one pound of common salt. When it boils, skim it well, then put in as much fish as your liquor will cover, and when it is done enough, take it out carefully, lest you strip off the skin, and lay it in an earthen dish. When you have done all your fish, let it stand till the next day ; then add to your liquor about half its quantity of vinegar, two ounces of ginger sliced, the same of black pepper, a few cloves or any spice you please. Boil them well together half an hour, and pour it boiling upon your fish. When cold, cover it well with strong brown paper, and it will keep a twelve-month.-M. M.
587. MARKING LINEN.-The follow. ing plan answers the purpose of a perpetual inventory. On obtaining a batch of articles, say a dozen towels, or shirts, mark on each of them, first the number in the batch, and then the name and date thus " 12 Smith 5. 57." Now, on discovering one of these at any time you know that there should be eleven others of the same mark in existence, unless the date renders it probable that they have been worn-out and discarded; in which case their absence would give no concern. Whereas the ab. sence of one in an ordinary inventory leaves no indication whether it be a new or old article that is missing. A combination of the two methods has, of course, all the advantages of both.

## 588. SCARLET FEVER.

Scarlet Fever, or, as it is professionally called, Rosalia or Scarlatina; as the most frequent disease after measels, to which childhood is subject, is the affliction we shall now treat of.
589. Repeating here on scarlatina wnat we have said in the previous article, on its sister disease ; that though like measels, it is more especially confined to the period of infancy and youth; yet it may, and often does, attack adult age.
590. In all cases of this sort, the same treatment laid down as the guide for childhood must be adopted; only increasing the dose of the medicines, in order to obtain a strength sufficiently efficacious. But in lieu of the aperient powders, an adult, according to the strength and sex of the patient, should take a pill every four or six hours, and two or three table spoonfuls of the following mixture, after each pill, till the bowels are efficiently acted upon.
591. Aperient Pills.-Take of compound extract of colocynth and blue pill, of each kalf a drachm. Mix and divide into six pills.
592. Aperient Mixture.-Infuse half an ounce of senna, and two ounces of epsom salts, in a pint of boiling water, for four hours; strain through a piece of muslin, and add two teaspoonsful of spirits of hartshorn, or sal volatile.
593. Scarlet fever is divided into two kinds, the simple, rosalia, and the malignant or putrid, scarlatina maligna.
594. In the simple form of scarlet fever, the first symptoms observable, are those peculiar to all febrile action; with slight shivering, loss of appetite, irratibility, hot skin, flushed face and sore throat, or, difficulty of swallowing. As soon as the throat begins to be affected-which it may do either before any other symptoms show themselves, or only after the febrile action has set in-all the symptoms are accelerated. There is now well marked shivering, great heat of the body, head ache, thirst, a full quick pulse, with the tongue dry, furred and red at the edges; while the papillæ on the top are elevated, and look like minute spots seen through the fur that covers them; giving the tongue a speckled appearance. This is a peculiar and marked feature, and
appears so seldom in any other disease, that it may be said to characterise scarlet fever only : this, however, in conjunction with sore throat, can leave no doubt of the disease.
595. On the third day, an eruption shows itself on the skin, at first on the face and neck, in diffused broad red patches ; that examined minutely, appear to consist of minute red points, resembling closely, a boiled lobster.
596. The rash proceeds from the face, to the back, chest, arms and elbows, or whereever there is pressure. The white coat of the eye, or the conjunctiva, as it is called, is tinged with red, and slightly bloodshot; but this is not an invariable symptom. Till the eruption is fairly out, there is more or less oppression of the lungs, and much difficulty in swallowing from the inflamed state of the throat and tonsils.
597. The facts and circumstances especially to be observed in scarlet fever, and which define it from other diseases, are, 1st., the sore throat; 2 nd., the greater heat of the skin; 3rd., the singularly speckled tongue ; 4th., the boiled lobster appearance of the eruption; and, lastly, its being imperceptible to the touch, while measels and others are raised and feel rough.
598. Treatment. - When satisfied by the febrile symptoms, the sore throat, and significant tongue, that you have scarlet fever to deal with, the first energetic measure, is to reduce the heat of the skin, and thereby facilitate the freer development of the rash. For this purpose strip the child, and having mixed a quartern of vinegar with three pints of cold water in a bason, sponge the whole body rapidly, but effeectually over with this cooling lotion. Wrap the child immediately in a blanket, and put it to bed to sleep and perspire, which it will often do directly.
599. As an aperient mixture and powders, use the prescription ordered in paragraph numbered 492 and 494 ; and in doses of the same relative proportion, according to theage, and the frequency of its exhibition. Put a hot bran poultice round the neck and throat, and repeat it three or four times a day, renewing the heat of the poultice by immersion in boiling water. When the thirst and fever are strong, give the patient barley water, such as is prescribed at 492, and the fever mixture
ordered in 497 , following the rules there laid down for its employment.
600. As it is quite absurd to attempt to gargle a child's throat, the best means of relieving that organ, after the adoption of the poultice, is the inhalation of steam from hot water, or sage tea through the spout of a tea-pot. The same general rules laid down for the treatment of measles is to be followed in scarlet fever, especially as respects the keeping the patient cool. Should the heat of the body require it, and the rash be obstinate in coming out, the sponging may be repeated once or twice with benefit, either using the cold vinegar and water as before, or simply tepid water. Where the patient is weak, and there is any timidity in the matter, the latter mode may be used, as being less formidable than the other.
601. The eruption generally terminates about four or five days after its first appearance, by disquamation, or peeling off of the skin; at this time great care must be taken of the throat, and the poultices repeated. When the rash has entirely subsided the body is to be well rubbed with a dry towel, to remove the dead cuticle, and excite the new skin to a healthy action.
602. Scarlatina Maligna.- Is characterised by the greater severity of all the symptoms, the inflammatory and ulcerated state of the throat, difficulty of breathing and extreme debility, foetid breath, and
small quick pulse.
603. Treatment.-Having cleansed the bowels by the use of the aperient mixture and powders, a blis ter must be put on each side of the neck, just below the ears and over the tonsils, varying in size from a shilling to half-a-crown, and the patient put into a hot bath for three minutes, for the double purpose of opening the pores and throwing out the eruption. As a further means to the same end, the tonic stimulant mixture, ordered in typhoid measles, 498, must be given in the same dose, and as often as it is prescribed in that disease. In children, under two years, one blister will be sufficient, which, when the plaster is removed and the blister cut, should be poulticed for a couple of hours, and then dressed with violet powder, instead of the old and objectionable dressing of lard and ointment. - 604. When the patient is convalescent,
the quinine may be given as ordered in paragraph 500 , as a general tonic, which, with an aperient powder daily, may be continued for about a week. Should dropsy supervene - the most frequent sequel of scarlet fever-it must be met by generous diet, wine, exercise, and small doses of sweet spirits of nitre in a little sugar and water. Ten drops to a child of one year every four hours, and about twenty drops in the same way, and time, to a child of six.
605 . To children over that age the decoction of dandelion may be given in a wineglassful frequently with the highest benefit. It is made by boiling two handsful of dande-lion-root, cut into chips, and half an ounce of Spanish juice in three pints of ounce slowly down to two; when cold, strain, and give from a wine glass to a cupfull for a
dose. dose.
606. Should there be much subsequent weakness, and, as is sometimes the case, loss of mental and muscular power, steel wine, in teaspoonful doses, may be given alternately with the quinine; or the following mixture, in the dose and manner prescribed; will be still better.
607. Steel Mixture.- Take of best honey one ounce-dissolve this in four ounces of boiling water, and to this in a bottle add three drachms of the muriated tincture of iron-mix.
608. To a child from one to two years, a tea spoonful twice a day; from two to four years, the same dose three times. At six years a desert spoonful every eight hours, and from that age to ten years, let the patient take a desert spoonful every three
or five hours.
609. TOMATO SALAD.-Take two ripe tomatoes free from bruises, and slice them very thin. Then take two mild onions about the same size, peel and slice them also very thin ; take your dish, or plate, and dish them round; first a slice of onion and then a slice of tomato, till you have dished it all up; and if done nicely will have a nice ap. pearance. You must now take four tablespoonfuls of the best salad oil, and pour over the whole of it; also two tablespoonfuls of vinegar, a small teaspoonful of pepper, and half a teaspoonful of salt; give it a slight shake, and it is ready for use, either with cold meat or hot. This salad is delicious.

## 610. JUNE FOR THE BOYS AND GIRLS.

Now summer is commencing. This and the two succeeding months being generally the hottest in the year, will tempt many boys to the banks of rivers and pools, into which we would most earnestly caution them against venturing, without some preliminary instruction in-
611. Swimming.-As well as being fairly entitled to rank foremost among athletic sports, swimming is undoubtedly one of the most necessary accomplishments. Besides, no boy knows how soon, or how frequently, he may be called upon to exercise a knowledge of the art, whether on his own account, or to assist in rescuing the life of a playmate. English boys, of all boys, should endeavour to be expert swimmers. The very nature of an islander seems to invite to such an acquirement. Britons are, and have been, from time immemorial, rovers the wide world over, and exposed as such to every possible peril by sea and flood. Nor is it on such accounts only that a familiarity with the practice of swimming is desirable. It is highly conducive to the development of muscalar strength, bracing to the nervous system, and even tends to repair the strength of the vital functions when they may have fallen into decline. We do not like to say any thing to British boys which might induce them to disparage the advantages they possess as Britons, or to set up odious comparisons between their own dear native land and foreign states, or we might speak of the multiplicity of swimming schools abroad compared to their spread at home. Suffice it to say, that every boy ought to be a good swimmer ; that a swimming academy should form one of the institutions of every town in the kingdom; and that, in the meantime, the boy readers of the "Calendar" will do well to follow implicitly the following directions:-
612. Going into the Water.- The first thing is to conquer timidity. The whole success of swimming mainly depends upon confidence. Let it be understood that water is much more buoyant than the atmosphere, and that this quality tends to support the body-to raise it-rather than to let it sink. Take a bladder filled with air, and try to thrust it into the water. The resistance
will be very great. Within the body of every swimmer there is a similar air-distended vessel, which acts similarly under similar circumstances. So that the first sensation experienced by a person going into the water is the tendency to reappear upon its surface. Timid boys often walk into the water. The best way is to get an elder friend to lay hold of you-with your full consent, of courseand dip you over head and ears. You will soon find out how easy it is to come up again. A sloping descent should be chosen without holes or irregularities, so that you may choose your own depth. Dr. Franklin's advice upon this point is as follows:"Choose a place where the water deepens gradually, walk cooly into it until you are up to your breast; then turn round your face to the shore, and throw an egg into the water (the circumstance of the egg not being broken in its descent to the bottom, will prove to you what we have said about the buoyancy of the water) between you and the shore; it will sink to the bottom and be easily seen there if the water is clean. It must lie in the water so deep that you cannot reach to take it up except by diving for it. To encourage yourself in order to do this, reflect that your progress will be from deep to shallow water, and that at any time you may, by bringing your legs under you and standing on the bottom, raise your head far above the water; then plunge under it with your eyes open, which must be kept open before going under as you cannot open the eyelids afterwards from the weight of water above you; throwing yourself towards the egg and endeavouring by the action of your hands and feet against the water to get forward, till within reach of it." But in whichever way you (at first) enter the water it is advisable to wet the head and neck either previously or im. mediately afterwards. This is for the purpose of equalizing the temperature of the body. A common method with beginners is to walk or run boldly in, and when in to plunge the head and neck beneath the water. But let not the tyro be ashamed; he is seen at first timidly to dip one toe in, and shiveringly withdraw it. The greatest swimmers that history speaks of have probably done the same. Caution is a good
thing, and confidence is a plant of slow growth.
613. Use of Corks and Bladder.-We advise young practitioners, when they cannot obtain the personal assistance of some friend proficient in the art, to procure these. A set of cork floats may be easily made. Any cork-cutter will supply you with material enough for less than a shilling. Six or eight cylindrical pieces are strung together with a piece of rope, or a thong of leather ; the length of this rope or thong may be regulated by your fancy or taste. Their use need scarcely be pointed out; passing under the armpits, the young bather lies upon them, and throwing up his legs, begins his familiarities with the limpid element. As a support to the head and shoulders, they are undoubtedly efficient, but, of course, they interfere with any progress forward, and it is therefore best, as soon as the slightest confidence in the water has been obtained, to discard the corks altogether. It has been objected to their use that they induce a lazy reliance upon an artificial aid, and hinder the necessary exertion which, while it would support the body without them, would do "all the good in the world" to the limbs; but a more valid objection is, that they sometimes get shifted out of their place, and tend to send the legs upwards instead of
614. First Attempt at Swimming.If any boy has watched the motions on a


Fig. 1.
FIRST ATTE MPT AT SWIMMING.
pond of the homely and despised frog, he will have seen the most perfect model in
action of a first-rate swimmer. With his head a little thrown back, his chest gently pressed on the water, resting, as it were, his chin upon its surface ; his hands joined, palm to palm, or thumb to thumb-either way will do-the fingers and thumb of each hand brought close together, like the webbed feet of ducks-let him spring forward from the ground, at the same time throwing out his arms before him to their greatest reach-the legs at the same moment should make a motion corresponding to that of the arms. Fig. 1 shows the kind of attitude the body would assume at the commencement of the stroke. After the spring forward, the hands, with the palms outwards, the fingers and thumb close together, and the latter downwards; scoop the water, as it were, and describe an arc of ninety, of which the shoulders form


Fig. 2.
ATTIDUDE FOR AN ORTHODOX DIVE. the centre. In bringing them to the first position, they are swept to the sides as low, but at some distance from the hips; the arms are brought close to the sides, the elbows bend upwards and the wrists downwards, so as to let the hands hang momentarily down. This will suffice to send the body forward, and it will only be necessary to repeat the action in order to continue its progression. Do not let either the feet or hands cut the surface of the water; keep them beneath it, the feet about a foot or a foot and a half, and the hands a few inches. It is with swimming as with most other things, whether arts or sports, the best practitioners make the least splash.
615. Diving and Plunging.-There is a difference between diving and plunging.

The former is for deep waters, the latter for shallow streams, and gradual descents. Fig. 2 , exhibits the right attitude for an orthodox dive. In this case the head is brought down towards the chest, the arms stretched forward as in an intensely supplicative position, the hands forming a point: the legs and thighs make an angle of ninety degrees, and the knees touch the shoulders. The plunge must then be made fearlessly, but care must be taken that a somersault is not


Fig. 3.
SHALLOW WATER PLUNGE.
the consequence. When the diver has gone as deeply as he intends, or wishes, he may by raising and depressing his arms, rise to the surface. This practice is, of course, only fit for experienced swimmers. In the shallow water plunge, (Fig. 3), the learner must throw his body as far forward into the stream as he is able. When lie reaches the water, he must raise his head, straighten his


Fig. 4.
HAND OVER HAND SWIMMING.
back, and take the first position described above (See Fig. 1). But there is a good
method of going into the water, called the feet foremost plunge, which should be practiced, as it may often happen that that method of jumping into a stream may be the most desirable, as for instance in attempting the rescue of a playmate. The young swimmer, therefore, should endeavour to become accustomed to it. In this case, the legs, arms, and head, are to be kept perfectly stiff and immoveable, and in no case to throw the limbs into any other attitude. It will very soon be found that nothing can prevent the diver returning to the surface almost immediately.
616. Hand Over Hand Swimming. This belongs to what is called "fancy swim-ming"-in this country, although, and in savage nations, those of Polynesia, for instance, it is the most commonly practised. In hand over hand swimming, the body appears to be gracefully running. (See Fig. 4.) The right hand is raised from the water


Fig. 5.

## balancing.

from behind, describes an arc in the air to the extent of its capacity and re-enters the water edgewise; immediately it is turned palm downwards, and continuing the circle beneath the water acts like a paddle in propelling the body. Simultaneously the body is turned upon the right side, and the right leg kicked backward to its full extent. When the right hand has reached a point near the thigh, which it evades by a slight
turn, the body turns commences to turn on his left side, the left hand and body then do what the right hand and foot have done, and so hand over hand swimming is accomplished.
617. Swimming on the Side.-This is often adopted as a relief to the swimmer when fatigued with the ordinary swimming motion. To do it elevate the left shoulder, thrust forward the right arm along the surface, and with the palm hollowed scoop the water towards the chest, rising the left and right hands alternately with the thumbs downwards in the manner of an oar. The feet are struck out in the usual way.
618. Balancing.-Let the head fall gently back till the chin is just upon a level with the surface, and the whole back of the head immersed. The arms, and even the legs may be crossed (see Fig. 5), and the swimmer is "balancing." To practice this feat, coolness is required; the water should be smooth and unruffled by any cause, as any wave, however trifling, may send the water into the nose and eyes of the performer, and discompose him balancing, and all feats of floating are dependant upon the natural truth that the air within the cavity of the chest is sufficient, rightly managed, to suppor't the body in the water. If the balancer stretches out his arms at their full length and brings them in a line behind his head, his legs and feet will rise to the surface of the water-his toes will appear above it, and he will lie like a plank upon the water for any length of time he pleases. This is the result of the fact that the lungs have now become the centre of the body, the head and arms at one end balancing the legs and feet at the other.
619. To Swim on the Back, Feet First.-Proceed as described at the commencement of the last paragraph, allowing the head to fall gently backwards; press the hands downwards and backwards, with the palms rather hollowed. The feet will immediately rise to the surface, when the hands may be used to press the water exactly as oars propel the body forward by successive stroies, the hands being raised edgeways, and passed gently along the sides till they descend for another stroke.
620. To Swim on the Back, Head FIrst.-This is to be done in several ways.

Method the first: Throw your head gently back, as before describel, bringing your feet to the surface: let your arms lie in the way close to your sides, using your hands in the same manner as when sculling, with a quick, thrusting motion towards the feet, returning edgewise, thumbs first, by bending the arms, and pushing again towards the feet, by straightening the arms close to the sides. By this plan a very quick progress through the water may be promoted, and it may be continued for a long time. Method the second: Throw yourself round on your back, without stopping (we will suppose that you are swimming in the first described method), and you will retain some of the impetus already acquired. Then let both arms and hands


Fig. 6.
swimming on the back, head first.
describe segments of circles in a backward direction, like the paddle-wheels of a steamer: or you may vary this, but letting the arms circulate alternately, as in the "hand-over-hand swimming." Method the third: Both hands and arms are used, as in the last method, but, in addition, the feet and legs are used in a thrusting action. The motion with the legs takes place while the hands are in the air.
621. Treading Water.-To do this, allow your feet to descend perpendicularly on the water, and by an action similar to that of stepping up a ladder, you will be able to keep your head and neck above the surface. The hands may be made to assist materially by a kind of pawing motion, the backs upward in the downward stroke. In regaining their position they turn sideways.

By the union of the powers of the hands and feet, treading water may be continued for a length of time. By inclining the body to the left or right, you may advance in any direction you choose, although, the progress will be but slow. There are a variety of feats to be performed in the water, which when you have conquered your first timidity, you may easily do ;-such as trimming the toe nails-holding one leg out-which may be best learned from the observation of other and older swimmers.
622. Anecdotes of Swimming.-Dr. Franklin, relates of himself, that, when a boy, he amused himself while bathing by flying a kite. He says, "I found that lying on my back, and holding the stick in my hand, I was drawn along the surface of the water in a very agreeable manner. Having then engaged another boy to carry my clothes round the pond, to a place which I pointed out to him, on the other side, I began to cross the pond with my kite, which carried me quite over without the least fatigue, and with the greatest pleasure imaginable. I was only obliged occasionally to halt a little in my course, and resist its progress, when it appeared that by following too quick, I lowered the kite too much : by doing which, occasionally I made it rise again. I have never "he adds," since that time practised this singular mode of swimming, though I think it not impossible to cross in this manner from Dover to Calais. The packet-boat, however, is still preferable."
623. The story of Leander, who was said to have swam nightly across the Hellespont, the present Bosphorus-to meet his affianced bride, Hero, is one of the prettiest in antiquity. The fair one was accustomed to place a light in the window of her tower, which served as a guide to her lover in his perilous trip. His death ensued in consequence of the failure upon one occasion of the accustomed token. Poor Leander was found in the morning extended lifeless at the foot of Hero's tower. Lord Byron attempted, and successfully achieved, this feat of swimming across the Bosphorus in emulation of Leander, as we read in the memoirs of his life. Sea bathing is always preferable to river bathing.
624. PEARS MARMALADE.-Boil six good-sized pears to a pulp; weigh them; take half their weight of sugar ; put it into a sancepan with a very little water; boil it, and skim it whilst boiling; when boiled to a crack, add the pulp of the pears; give it a boil, and add about four drops of essence of cloves; when cold, use.
625. SPARKLING MOSELLE.-If, in making cider, one fourth of the apples were replaced by the white Magnum Bonum plum, taking care not to break the stone, and proceed as above, a good resemblance to Moselle is the result. To give it the muscatel flavour, a small quantity of musk may be used.
626. APPLE BREAD.-Take some good boiling apples; boil them till quite soft; pulp them through a sieve ; put into a bowl, or tub, four times their weight of flour ; add the yeast and mix up as for bread; set the sponge twice ; cake in tins ; this, when nicely done, makes a good, short sweet, and wholesome bread. They will also mix very nicely with a soda cake for tea.
627. ANother way.-Take the same weight of Indian meal, Bengal cargo rice, and good baking apples; soak the Indian meal for two hours previous to boiling, remove all that floats on the top of the water. Boil all three in different vessels ; have plenty of water ; the meal will take two hours, under any circumstances, to render it fit for digestion. The rice should be boiled until it becomes a pulp; when done, mix them together, and turn out into a dish, or on the table, to get cold. It ougbt to be, when mixed and cold, as stiff as dough. When cold, mix some soda, and form them into cakes of about one pound each, and bake on the griddle or in the oven.

## 628. CURRANT JELLY, RED OR

 BLACK.-Strip the fruit, place it in a stone jar, and stew it in a saucepan of water or by boiling it on the hot hearth; strain off the liquor, and to every pint weigh a pound of loaf-sugar ; put the latter in large lumps into it, in a stone or china vessel, till nearly dissolved; then put it in a preserv-ing-pan; simmer and skim as necessary When it will jelly on a plate put it in small jars or glasses.
## 629. THE FAVOURITE SON.

" Mary, you will certainly repent, sooner or later, your unjust partiality for your eldest son," said an old lady to a young creature, apparently her daughter, who was dressed in widow's weeds, and who was fondling a pretty child of about three years old, while his brother, who was a year younger, toddled about, neglected on the hearthrug, in imminent danger of falling into the fire.
"Oh no, mamma," said Mrs. Young, "surely you cannot blame me; my darling is the image of his father, and the other"and she glanced with an almost unmotherly look at the poor child on the hearthrugwho, certainly, was uncommonly plain.
" Mary," said her mother, solemnly, "remember I have warned you, your blind partiality for Philip will meet with its punishment. Do you think that God will permit such sinfulness? He maketh his rain to fall both on the just and on the unjust, and you would have no excuse for loving one child better than the other, even were one good, in the common acceptation of the term, and the other naughty. Such, however, is not the case, for I observe your favourite, Philip, is infinitely more troublesome than Robert; he is already quite spoilt by ,your pernicious system of indulgence."
"You are so severe upon me," murmured the young widow.
"And, moreover," continued Mrs. Maitland, without heeding the interruption, "it is not that you really love Philip moreyour pride is satisfied - that is the secret of all the petting you lavish upon him; he is a beautiful child, and attracts attention everywhere, while the other is plain, not to say ugly. Oh, Mary, Mary!"

Mrs. Young burst into tears, and, rising from the sofa, left the room, carrying Philip with her, who, on seeng his mother crying, set up a howl himself, which was immediately construed by her into a demonstration of affection.

Mrs. Maitland shook her head sadly as her daughter quitted the room, and she fell into a sorrowful reverie, which was interrupted by the other little boy who had crept as far as the sofa, and lisped out, with his
large serious eyes fixed on his grandmother's face, "Why mamma, cry ?"

She took him up and covered him with kisses. "Oh how bitterly Mary will repent some day," thought she.

Several years passed, and the mother, with her two children, were seated in the same room. Mrs. Maitland had died a short time previously. The favourite son, Philip, had grown a tall, handsome boy, inordinately spoilt, and self-willed and obstinate to the highest degree. Poor Mrs. Young resolutely shut her eyes to his faults and opened them to his perfections, which were alas! considerably fewer in number than the former. She tried not to see his growing contempt of her counsels, and his dislike at being advised by her, which was but too apparent to others. Her younger son, Robert, was as neglected now as formerly. He was very tall of his age, thin, tawdry, and awkward, for he had outgrown his strength, and as often happens to boys of thirteen and fourteen, he did not know what to do with his arms and legs. This provoked Mrs. Young extremely, for she was peculiarly graceful herself, and as she repeatedly told him "it was most mortifying to see a child of her's so clumsey and unprepossessing in his manner." She constantly held up to his notice the graceful bearing of his brother, most injudiciously, in Philip's presence, so that the elder brother took a leaf out of his mother's book, and continually upbraided Robert for everything he could find defective in him. A tutor was provided for the two boys, a Mr. Howard, who, when he found that Philip was the favourite, lost no opportunity for praising the clever, yet idle boy, while he made complaints of his less brilliant, yet more steady and persevering brother. Poor Robert, scolded and tortured on all sides for faults which were not his own, grew very unhappy, but he never envied his handsome brother, for jealousy was not a part of his disposition. He did, indeed, sometimes wish that he were as handsome, and as loveable as Philip, and that Mr. Howard would not say he had done things which he had not, for the poor boy knew well that his mother would not listen to him or believe him, if he told her that his tutor was unjust. He did wish that his mother loved him as she did Philip,
but he never for a moment wished a cessation of her love towards her favoured son. He had once thought that she did not love him at all, but he had altered his opinion, ever since a dangerous illness he had had, when she watched night after night beside him. He knew she loved him then, and he never forgot it. When he was seventeen, a wealthy merchant, a friend of Mrs. Young's, offered him a place in his counting house, and his mother was very glad that he was thus provided for. At first he wrote regularly, smothering his real feelings under a constrained and stiff manner of writing, and Mrs. Young was so disgusted, at his supposed want of affection, that her answers grew fewer and fewer, and colder and colder, till at last the correspondence ceased altogether; she, resting satisfied that he was going on well. She knew not how careful her short notes were all treasured by the young man, how he read them over and over, and tried to discover some token of affection therein. Meanwhile Philip was sent to Oxford, where he wasted his time, and was plucked. He returned home, in a very bad temper, and he was not prepared to be lectured by his mother. Mrs. Young, however, on this occasion, saw clearly that it was entirely his own fault, and reproved him warmly. He flung himself out of the room with an oath, swearing that he would not be scolded by his mother, or by any woman living, leaving Mrs. Young to cry bitterly, and think over all the undutiful, disrespectful things he had said. In a few hours he returned, and seeing his mother look unhappy and grieved, he begged her pardon with more affection than usual, and again he became her darling son, and the light of her eyes. When he attained the age of twenty-one he came into a considerable fortune, and then his character was displayed in its true colours. He was extravagant in everything that regarded himself, and mean and paltry in everything that regarded others. He neglected his poor mother shamefully, and she then felt bitterly how little he remembered all her blind, foolish indulgence. But she had not yet been sufficiently tried in the furnace of affliction, and she did not yet repent her injustice towards her youngest son. Five years passed, miserable years they were, yet cheered by Philip's occasional remorse,
and promises of amendment. At last he went abroad, and as he never wrote, his mother lived in absolute ignorance of his proceedings, when one day, a letter, bearing a Parisian post-mark, arrived, directed in a strange hand. Mrs. Young trembled as she held it in her hand, but forcing a laugh at her nervousness, she opened it. One glance was sufficient: The paper fell from her hands, and, with a cry of the most intense anguish, she exclaimed,
"Mother, you were right, the day of retribution is come!"

The contents of the letter were as follows :-

> "Paris, Jan. 23rd, 17-.
"MADAM, - It is with sorrow, and with the deepest sympathy for your feelings, that I announce to you the death of your son, Philip, who expired this morning, under circumstances peculiarly distressing. It seems that the unfortunate young man had fallen into bad hands, and had repeatedly lost large sums at play. On Monday, the 21st of January, he staked his all upon one throw, maddened by his losses. He lost again, and charged his adversary with having played unfairly (which was, most probably, the case). The consequence was a duel, in which your unhappy son was mortally wounded. He was carried to his hotel, of which I also was an inmate, and hearing that a dying Englishman occupied the apartment next mine, I determined, as a minister of the Gospel, to visit him, and try to afford him every consolation in my power in that capacity. At first he refused to be comforted; he was in a state of mental distress it is scarcely possible to imagine; he lamented his past life, and said there was no hope for him beyond the grave. But on my telling him that Jesus Christ died to save sinners, and all that came to Him in faith, and repentance of their sins, depending alone on Him for the remission of them, He would in nowise cast out; then he grew gradually calm, and begged me to pray beside him, which I did, and never left him till he breathed his last. He died this morning, happily and peacefully, trusting fully to his Saviour's merits. He implored me to write to you, madam, and entreat you to forgive him, which I feel convinced is unnecessary, and I trust you will not be offended when I
tell you, that with his latest breath he begged me to say, that he was conscious that he had behaved unkindly towards his brother, and feared you had indulged him too much, to the exclusion of the other, and he requested me to write to Mr. Robert Young, and inform him of his death, and of his sorrow and repentance.
"Believe me, madam, with sincere sorrow for your loss, very truly yours,

> "(Rev.) GEorge NuGENT."

Poor Mrs. Young! her idol was gone, the son she had indulged so improperly was sead, and she felt that she alone was to blame. The only thing which prevented her feeling utterly overwhelmed, was the knowledge that Philip had died peacefuly. He had repented, and, though it was at the eleventh hour, he had been accepted. She
expected a letter from her octer son, with expected a letter from her other son, with trembling anxiety, but week after week passed on, and no letter came; the sorrowing and bereaved widow was bowed to the very dust. One evening she sat in her solitary drawing-room, and her memory went back to the day on which her mother had given her that memorable warning. How truly her prediction was accomplished. She bowed her grief-stricken head upon a table that stood near, and out of the very anguish of her heart, she groaned; "Thou hast forsaken me, Oh, my God, and I have deserved it."
He has not forsaken you, mother, "said a deep, earnest voice, "for he hath sent me here."
It was almost dark, and Mrs. Young trembling in every limb, sprang from her seat, and was clasped in the arms of her only remaining son. Long and tenderly did Robert Young soothe his mother, and he informed her in a few words why he had not come instantly on the receipt of Mr. Nugent's letter. He had been called away to attend the deathbed of the merchant, whose junior partner he was, and who had now left the entire business to him, as he had no son. It was some weeks before he was able to return to Liverpool, for there were several things to be done, first, and when he did, he found the letter had been awaiting him some time. He instantly set off to comfort his mother in her affliction. She lived in the south of England, and travelling was not so quickly or so easily
performed a century ago, as it is now.
He bad travelled night and day, and had arrived in time to hear the self-accusation of his mother. As soon as he had finished speaking, Mrs. Young entreated his forgiveness, with tears of mingled affection and remorse. "I have have neglected you, dear Robert," exclaimed she, "I have lavished undue indulgence, to use the mildest term, on your poor brother, and I have not de. served your affection, my son."
"Mother," said the young man, "it is not right for you to ask my forgiveness. I ought rather to entreat yours; I know I did not appear as affectionate as I really was, and so misled, I know you always loved me, dear mother, and henceforth you must live with me. The business that has been left to me is flourishing, and you will come with me, mother, and gladden my solitary home, which shall be solitary no longer, for I only need your consent and approval to provide you with a daughter !"
Years afterwards, two ladies, one with grey hairs, and deeply-wrinkled brow, were sitting in the drawing-room of a handsome villa, near Liverpool. Three lovely children played on the carpet at their feet. The younger of the two ladies contemplated them with looks of motherly pride and affection. The elder lady was speaking seriously and earnestly, "whatever you do," said she, "never show or feel more favour towards one child than towards another. I believe there cannot be anything more displeasing in God's sight. As for me, happy as I have been rendered by your's and my son's affection and tenderness, yet the past can never be forgotten; and though I trust I am forgiven, yet my sin can never be blotted from my memory." That lady was Mrs. Young.
630. SIMPLE MODE OF PRESERV. ING NOT ONLY FISH, FLESH, AND FOWL, BUT ALSO FRUIT AND VE-GETABLES.-It is only necessary to raise the articles immersed in a little water, or their juices, to the boiling point; then to seal them in air tight vessels, tin or glass, in order to insure their permanence, if needs were, for ever. Meats preserved thus are now sent from the Continent to Australia, and made up at home as a luxury for long

## 631. SPIRITS OF THE PAST.

Oh ! oft they're flitting round me-the Spirits of the Past-
They, at a word-a look-a tone-come thronging thick and fast-
A loug-forgotten melody-a breath upon the chain
That binds me to their shadowy forms, will bring them back again!
They come upon the morning, when the first streaks of dawn
Steal faintly o'er the woodlands and flowerenamelled lawn,
And, as I lie, half-dreaming, they whisper in my ear,
"The wild bee and the lark are up, why lie you sleeping here ?"
And then they turn their voices to soft and gentle lays
Of joy, and hope, and innocence and childhood's sunny days,
When, to exist was to be blest, and the young heart ran o'er
With the first freshness of delight-ah! dream to come no more!
"The summer flowers bloom fair," sing they " fast by the mountain side-
The butterfly is roaming there, in all his summer pride;
Time was, when by the woodland, at dawn you loved to stray,
To pluck the dewy daisies that bloomed around the way."
I dream again-and round me sweet forms, sweet faces come,
And through the glen and wildwood with them I seem to roam,
And sounds of childish laughter ring out upon mine ear,
Sweet Spirits and the shadowy Past? it is your voice I hear.
They come upon the noontide, and whisper soft and low,
Of tiny feet that pressed the sod where the purple violets grow,
And of joy-wearied little ones who laid them there to rest-
The fragrant flowers beneath their feet and heads on the green earth's breast.
They whisper of dreams that haunted me as I lay sleeping there-
Angelic beings, with golden wings, that fanned the fragrant air-
Wakening it into melody-a spirit-stirring strain-
Oh! gentle Spirits of the Past! breathe me that song again!
They come upon the twilight, when summer dew descends,
And from each fairy chalice, which to its influence bends,
The Spirits aye, are singing of flowers that slept at night,
But waked not with the morning, nor in the noonday light.

They come upon the twilight, in music's mourn. ful strain,
Whose mystic measures thrill my soul till it beholds again
The loved, the beautiful, the dead-peopling the earth and air,
And I a shadow of myself, seem floating with them there-

Drinking each angel-melody, till every silvery tone
A wakes, within my throbbing breast, an answer to its own ;-
Be it a sigh, the sound of song, or laughter soft and low,
My heart vibrates to every strain as the sweet numbers flow.

They ccme upon the evening, when on the balmy air
The vesper bell is pealing-"Lo! 'tis the hour of prayer,"
And from the pale stars bending, they softly whisper " Come!
The good, the bright the beautiful, are in this heavenly home!"
They come upon the midnight, and whisper me in dreams
Of ghastly marble urns, whereon the fitful moonlight gleams-
Of willow branches bending over a grassy bedOf dark night-dews, decending upon some loved ones head.

Again the vision changes, and happy faces come Around my bed, like those that cheered my childhood's sunny home-
The same yet still more heavenly, and they sing sweet songs of rest.
Until I seemed to fall asleep upon my mother's breast.
Oft, oft they're flitting round me-the Spirits of the Past-
At morning, mid day, midnight, their mystic spells they cast
Around my saddened spirit, till it doth strangely long
To sigh its very self away, and join the shadowy throng.
632. TOMATO CATSUP.-The following receipt will be found excellent:-One quart best vinegar; quarter-of-an-ounce of mace; quarter-of-an-ounce of cloves; half-an-ounce of black pepper; half-ounce of Jamaica pepper; half-ounce of long pepper; half-ounce of ginger; half-ounce of mustard seed; twenty-fivecapsicums ; fifty tomatoes; six heads of garlic; one stick of horseradish. On the fifty tomatoes throw half-pound of salt, and let them stand three days. Boil the above ingredients (except the tomatoes) half-an-hour ; then peel the tomatoes, and add them to it ; boil them together half-an-hour ; strain them through a sieve, and when cold bottle it.

## 633. A WOMAN'S IDEAS ON SMOKING.

There is a great commotion made at this time about smoking, and not before it was necessary. Medical men are making an outcry upon the use and abuse of tobacco. For my part, I can see the abuse of it clearly, but I cannot see the use of it. It is a vile habit, and we, ladies, owe a grudge to Sir Walter Raleigh for having introduced it. Cowper, to his honour be it recorded, wrote the following, on tobacco :-
"Pernicious weed, whose scent the fair annoys, Unfriendly to society's best joys;
Thy worst effect is banishing for hours,

> The sea, whose presence civilizes ours."

As I said before, there is a great fuss now made as to the use and abuse of tobacco, but I fear no benefit will arise from it, for it is the lords of the creation alone who are perpetrating these researches, and they will take care neither to do nor to say anything that may displease or put out their fellow lords. I do not see, however, why we poor women, the supposed drudges of creation, should suffer in silence. I, at least will not, and I hope that thousands and thousands of my fellow-sufferers will follow my example, and make so much disturbance, both at home and abroad, that their lords, deprived of their dearly cherished peace, will at least give up smoking in despair. I do not see why the women of England should not rise in a body and "strike." They have suffered long in silence, and since prayers and entreaties are of no avail, perhaps threats, and threats carried into effect, may. There can be no objection to a man smoking his cigar or meerchaum, if he must smoke for his health, provided he go to the uttermost part of his domain to do so, and can manage to smoke without the whole house being made aware of it. In the country it can be done very well; the man has but to go into his garden, or to step into his green-house (smoking being good for plants, especially vines), and no one else need be any the wiser; such a smoker is just bearable, but when it comes to smoking in the house, it is intolerable. I know a man who sits all day long in what he calls his "den," and a den it is, and a bear inhabits it, at least one would think so, from his rage, when he is disturbed in bis favourite pastime. There he sits in his
dirty hole, to which no housemaid is ever allowed access; there he sits, I say, a lord of creation, majestically puffing away, with a hideous smoking cap on his head, and his person enveloped in smoke. He boasts of the number of cigars and pipes he can demolish per diem, as if it were a virtue to make himself a living receptacle of tobacco. Talk of monomaniacs! I should never be surprised to hear that an inveterate smoker had mistaken himself for a railway engine, or a steamboat funnel. And it is not only of the dirt caused by this filthy habit of which I complain, it is of the influence that smoking possesses over the morals. It enervates the faculties, degrades the understanding, and renders men intolerably selfish, only caring for their own precious selves. Look at any man who is in the act of smoking. There he stands with his arms serenely folded, puffing volumes of smoke out of his mouth, not caring if it is in the very face of his poor wife or sister, and immovable for the time, wrapped up in his own dignity, forsooth! What is a man who smokes, but a selfish pig, fit only to grunt, and snarl, and grumble? This pernicious habit is gradually gaining ground in our country, and undermining the health, faculties, and morals of the men. Children of nine and ten smoke now, and are encouraged in so doing by their fathers, who ought to be ashamed of themselves.
But let me not withhold blame from the ladies, for it is in some measure due to them. The smoking-caps with which the gentlemen adorn their heads are generally embroidered by lady-members of their family, and thus serve as a tacit encouragement to them. If ladies would give up working cigar cases and making caps, and on every occasion make a fuss, as they ought, smoking might be abolished. Many ladies, thanks to their unceasing diligence, have already proved victorious, and I trust that many more, pursuing the same path, may be successful too, and that in a few years, smoking may become unfashionable, and die a natural death. J. B. T.
634. COOL TANKARD.-A quart of mild ale ; a glass of white wine; one of brandy; one of capillaire; the juice of a lemon; a roll of the peel pared thin; nutmeg grated at the top; a sprig of borage or balm; and a bit of toasted bread.

## 635. HOW TO BREED CARP SUCCESSFULLY.

In Germany large revenues are derived from breeding carp. In England it is a subject which is little considered, because there are very few with any relative practical knowledge.

In the first place, three ponds are required ; the spawning, the nursery, and the stock pond. They should be, at least 100 yards apart, protected from the north-east winds, but no trees to overshadow them; with a nice soft stream of running water, and, if possible, the drainage of the farmyard, or the backyard of a house, more particularly in the stock-pond, from whence the table supply is taken.

The soil in which the pond is placed should not be clay, as the iron in the clay stops the breeding; but if, unfortunately, you have only clay, then lay on a thick coating of gravel and sand ; turf it some distance down on the sides; the bottom should not be more than three feet deep, except where the canal is made for the water to run out; and be particular to keep it free from any metal that might corrode. The size of these ponds should be in proportion as 4,5 , and 6 ; that is, supposing No. 1 to be four roods, No. 2 five roods, and No. 3 six roods, and to every rood of the spawning-pond should be put in 50 brood carp, and a 100 male, 5 brood and 5 male Tench, and 5 brood and 5 male Jack; no other fish. Avoid eels, and, above all, frogs.

Jack is put in, because, if the carp were allowed to spawn without some of it being destroyed, the pond would be overstocked. A carp weighing one pound and a-half will contain, at least 300,000 eggs, as many as 342,000 have been counted; and in one of nine pounds 621,000 . The tench is put in to keep the fish healthy, it is the doctor, not only for carp, but for all freshwater fish.

The spawning-pond should contain Potamogeton natans, commonly called tench weed, and renunculus shivialis, or Water crowfoot, against the former they rub their sides when about to spawn, and on the latter they cast it. It requires two or even three male carp to fecundate the eggs of one brood carp; and it is not unusual to see the female, when spawning, attended by four or five males. A circumstance which is common in salt-water fish.

At the expiration of the first twelve months, about April or May, according to the atmosphere, the spawning-pond should be emptied into the nursery; and, at the end of twelve morths, the nursery into the stock-pond ; and so on in rotation, keeping the brood fish in the spawning-pond, as they are good up to nine years old. In the last pond they should remain twelve months, or longer ; in fact, if they are fed as they ought to be, any quantity may be kept, and a nice supply of the three kinds of fish may be obtained. Boiled pototoes, spoil Trelian meal, \&c.., for the carp and tench ; and the entrails of poultry, snails, slugs, \&c., for the jack; and when they have plenty they will not touch other fish.

You should have, in addition, a small pond, made of gravel, or rock, in which to place the carp, with a few tench, for six weeks before they are wanted for the table, and to feed them with crumbs of bread, to which has been added a few drops of oil of spike. It has been observed by experience that the oil of spike gives a fine flavour to the fish, makes it feed better, and eat firmer.
636. STEWED CELERY-Take some heads of good firm celery, remove the outer leaves, and cut off the top; trim the root, but not too much; wash it clean; if very large heads they must be cut in two. Put them into a stewpan; for four heads about one quart of water, and half-a-pint of milk, one salt-spoonful of pepper, and a tea-spoonful of salt; boil till they are tender, which will be in about thirty minutes, and the liquid will be reduced one-half; take out the celery with a fish-slice; mix a piece of butter, the size of a nut, with one tablespoontul of good flour, and a pinch of powdered sugar; put it into the stew-pan; stirring it well until it is properly mixed, and of a good consistency ; pour it over the celery, which has been kept warm, and serve. If not required immediately, place the celery in the stew-pan with the sauce until served. About four young Nasturtiums to each head of celery, stewed with it, improves the flavour. Stewed celery may be made with a brown sauce, if instead of milk, gravy and a little ketchup is used. And if red celery is used, a very good-looking sauce may be made by the addition of a few slices of beetroot.

## 637. APPLES AS AN INGREDIENT IN COOKERY.

Apples contain a large proportion of sugar, mucilage, and starch, in which are combined those acids and aromatic principles, which, to persons in the habit of eating animal food, tend to prevent its putrefactive tendencies, and act as refregerent tonics, and antiseptics, and tend greatly to promote digestion. To those constitutions having a tendency to gout, a walk of half-an-hour before breakfast, and the mastication of a good Ripston Pippin, would materially aid in preventing it. The follwing recipes will form excellent dishes which are not common in cooking books.

1. Boil one pound of Patna rice (well washed) in plenty of water; when well boiled, but not too much, add one ounce of butter, and stir it round; then add one tablespoonful of sugar ; the rice should not be boiled in more water than it will consume. Peel and slice six apples, take out the core and pips, put them in a stew-par with six slices of beetroot, and a pint of water ; stew until all is tender ; mash them up together with a little butter and sugar. The beetroot ought to have given a nice pink colour to the apples, and improved the flavour. When done, place the rice which is ready on a dish; form a well or hole in the midst of the rice, in which place the apple; have ready a small quantity of sauce made with a little cream, butter, and sugar, which pour over the rice, and serve.
2. Stewed red cabbage and apples.Well wash and cut up a good-sized red cabbage; peel its weight of apples ; slice and take out the cores; put them into a stewpan, together with a piece of butter and very little water; in lieu of butter, a piece of bacon ; stew them gently by the side of the fire until quite tender; stir and mix well together; season with pepper and salt; and serve either under roast pork, or pork chops, or warm a piece of pork, previously cooked, in the stew-pan with it, and serve.
3. Sausage, apple, and onion pudding. -Line a pudding-bason with some pudding paste in the usual way to make a meat pudding; place on the bottom a layer of slices of apples, half-an-inch in thickness; then a layer of sausage-meat; then one of slices of onions-Spanish are preferred-then apples,
sausage-meat, and onions, until the bason is full; season with pepper and salt between each layer; cover over, and tie up in a cloth, and boil; the time will be according to its size.
4. Apple Jelly.-Take apples of the best quality and good flavour (not sweet), cut them in quarters, or slices, and stew them till soft; then strain out the juice, being very careful not to let any of the pulp go through the strainer. Boil it to the consistency of molasses, then weigh it and add as many pounds of crushed sugar, stirring it constantly till the sugar is dissolved. Add one ounce of extract of lemon to every twenty pounds of jelly, and when cold, set it away in close jars. Instead of using so much sugar you may use sweet apples, and to every pint of syrup add half-an-ounce of gelatine, and then you obtain a beautiful jelly; or, if you put it into shallow tins and dry it, an excellent jujube is produced. As a jelly it is superior to currant jelly.

## 638. RECEIPT FOR FRENCH GUMBO.

Cut up one large fowl ; season it with salt and pepper; dredge it well with flour; have ready a soup-kettle; put in a tablespoonful of butter, one of lard, a handful of chopped onion; fry the fowl then to a good brown; add to this four quarts of boiling water ; cover close; let it simmer two or three hours ; then put in fifty oysters with their liquor, a little thyme and parsley ; just before serving, stir in a table-spoonful of the filee powder; season high with C ayenne pepper. Turkey and beef-steak can make also very good gumbo. The filee or felee is what gives a mucilaginous character and excellence to the soup. The powder consists of nothing more than the leaves of the sassafras cured in the shade, and then pounded and sifted; therefore, any family in the country can always have it in their house.
639. PURE CELERY SAUCE.-About twenty heads of celery, one Spanish onion, two good sized turnips should be well boiled in some clean white veal stock; when tender they should all be passed through a coarse sieve, and then put into a stew-pan, with pepper and salt, and boiled; keep on stirring until nearly as dry as mashed turnips. This is excellent served under a ragout of fowl, or with veal cutlets, or boiled rabbit.
640. WATERSPOUTS.-This meteorological phenomenon usually occurs when a whirlwind happens at sea. The water, for the same reason that it rises in a pump, or forms a fountain in an exhausted receiver, rises in the vacuum of the whirl to the height of thirty or thirty-three feet, forming a pillar of water in the air, widest at the top ; and the conversion of some of the upper part of the pillar into vapour, by the heat which originally occasioned the whirlwind, often forms a dense cloud. Waterspouts are observed of all sizes, from the thickness of a finger to twenty-five feet in diameter, and, at their junction with the ocean, the ocean appears to boil. If a large waterspout were to break over a ship, the vessel would either be destroyed or would sustain very serious damage; when, therefore, they appear to be coming very near, the sailors avert the danger by firing a shot against the water, and thus dissipating them. When not disturbed, they generally break about the middle. Several waterspouts are frequently seen within the space of a few miles, and they are attended in general with more or less noise, sometimes only a hiss, sometimes a murmur, and sometimes with a roar like that of an agitated sea. Waterspouts are sometimes driven from the sea to a considerable distance overland, where they at length break, and deluge the plain, besides the mischief produced by the gyratory motion of the air. As thunder and lightning frequently attend whirlwinds and waterspouts, it has been supposed that electricity, if not the sole cause of these phenomena, has at least a share in their production; but electricity is produced whenever water expands into vapour, or vapour is condensed into water; and the present state of knowledge on this subject is insufficient to decide whether the thunder and lightning may not be considered rather as the consequence than the cause of them.
641. BIRDS, METHOD OF PRESERV-ING.- Various methods have been attempted for preserving birds from putrefaction, so as to retain their natural form and position, as well as the beauty of their colours and plumage. A good antiseptic for animal substances has been much inquired after, as, for want of it, many curious animals, and birds particularly, from
foreign parts, entirely miscarry, and others of the finest plumage are devoured by insects. The following improved method by Dr. Lettsom seems to be the least troublesome, and the most complete. After opening the bird by a longitudinal incision from the breast to the vent, dissecting the fleshy parts from the bones, and removing the entrails, eyes, tongue, and brains, (which in large birds may be extracted through the eye-holes with a surgeon's director), the cavities and inside of the skin are to be sprinkled with the powders mentioned below. Glass eyes, which are preferable to wax, are then to be inserted, and the head stuffed with cotton or tow, and a wire is to be passed down the throat through one of the the nostrils, and fixed on the breast bone. Wires also to be introduced through the feet, up the legs and thighs and inserted into the same bone; next fill the body with cotton, to its natural size, and sew the skin over it; the attitude is lastly to be attended to, and whatever position the subject is placed in to dry, it will be retained afterwards. The dyeing compound is as follows :-Corrosive sublimate, quarter-of-apound; saltpetre, prepared or burnt, half-a-pound; alum, burnt, quarter-of-a-pound; flowers of sulphur, half-a-pound; camphor, quarter-of-a-pound; black pepper, onepound; tobacco, ground coarse, one-pound; mix the whole, and keep it in a glass vessel, stopped close. Small birds may be preserved in brandy, rum, arrack, or first runnings; though the colour of the plumage is liable to be extracted by the spirit. Large sea-fowl have thick strong skins, and such may be skinned; the tail, claws, head, and feet are carefully to be preserved, and the plumage stained as little as possible with blood. The inside of the skin may be stuffed as above. Kuckahu observes, (in the Phil. Trans., vol. ix. p. 319), that "Baking is not only useful in the fresh preservations, but will also be of very great service to old ones, destroying the eggs of the insects; and it should be a constant practice, once in two or three years, to bake them over again, and to have the cases fresh washed with camphorated spirit, or the sublimate solution, which would not only preserve collections from decay much longer, but also keep them sweet." But Dr. Lettsom remarks, that " Baking is apt to crimp
and injure the plumage, unless great care be used, and, therefore, the proper degree of heat should be ascertained by means of a feather, before such subjects are baked." And he prescribes as the best preservative, boxes well glazed; and he adds, "When the subject is to be kept for some time in a hot climate it should be secured in a box filled with tow, oakum, or tobacco, well sprinkled with the sublimate solution. In Guiana, the number and variety of beautiful birds is so great, that several persons in the colony advantageously employ themselves, with their slaves and attendants, in killing and preserving these animals for the cabinets of naturalists in different parts of Europe. The method of doing this, as related by Mr. Bancroft, (in his Nat. Hist. of Guiana) is, to put the bird which is to be preserved in a proper vessel, and cover him with high wines, or the first running of the distillation of rum. In this spirit he is suffered to remain for twenty-four or fortyeight hours, or longer, till it has penetrated through every part of his body. When this is done, he is taken out, and his feathers, which are no ways changed by this immersion, are placed smooth and regular. It is then put into a machine made for the purpose, among a number of others, and its head, feet, wings, tail, \&c., are placed exactly agreeable to life. In this position they are placed in an oven, very moderately heated, when they are slowly dried, and will ever after retain their natural position without danger of putrefaction.-Field Book.
642. WILL THE COMET STRIKE THE EARTH? -That a comet of unusual magnitude and splendour may, about the present period (1857), be expected to visit the regions of space through which the earth moves, has long been well known, and its approach, while looked for with great interest by the scientific world, has caused considerable apprehension in many quarters, and in some places where there should be sufficient knowledge of natural phenomena to have prevented such apprehensions being entertained. It has been confidently predicted that the end of all things is at hand, and that on some day in June, 1857-the 13th, we believe-the world, with all that it contains, is to perish. This is by no means the first time that such a prediction
has been heard. In 1832 it was calculated that a little before midnight, on the 29th of October, a comet would cross the plane in which the earth revolves, near the point where our globe itself would be on the morning of the 30th of November, and had the comet been delayed a month by any disturbance a collision with its nebulosity would have taken place. The alarm was then chiefly confined to the Parisians, who seem to be addicted to such fears, and it was in Paris the existing alarm about the now expected comet first prevailed. A similar alarm existed in France in 1773, and one of the philosophers of that country was employed by the government to allay the fears of the people. Some weakminded people died of fright, and some, scarcely less weak-minded, purchased places in Paradise at high prices. There is nothing on record to justify the belief that the earth has ever suffered injury from a comet, nothing to lead to the supposition that it is ever likely so to suffer ; but, on the contrary, there are good reasons for believing that cometary influence has been in some instances beneficial. Wine drinkers have not forgotten the " comet wine," some of which may yet be had "for a considera. tion;" this was grown in 1811, when a comet was visible, and when the yield of the earth's productions was more than usually abundant and the quality extraordinary. So it may be again, and that which is now in some quarters regarded with terror is not unlikely, if it should have any influence upon the earth at all, to have one which should be regarded with satisfaction rather than with alarm. Taking advantage of the interests now very generally manifested on the approach of the celebrated celestial stranger, and especially of the fears of the uninformed multitude, some unprincipled publishers have issued mischievous pamphlets containing a very small modicum of astronomical truth, and a monstrous amount of trash, calculated to increase, rather than allay, the alarm which has been excited by the prophets of evil. Other publications have been called forth to gratify public curiosity which are of a more reasonable character, but they mostly bear the catch-penny stamp upon them. It is pretty certain that the great majority of comets, and probably all of them, are
entirely gaseous-simple collections of vapour. The comet of 1770 passed twice through the system of Jupiter, yet there was not the slightest derangement of his moons caused by this intrusion. Should an instant of actual contast occur, there seems no more reason to infer convulsion from the attack of a gaseous body than in the case of a squadron of clouds striking the top of a mountain. "In all probability," says Milner, "the only effect would be a change of temperature, with some peculiar atmospheric phenomena, yet compatible with a full security to human life and happiness."
643. BOUQUET DE LA REINE. Take one ounce of essence of Bergamot, three drachms of English oil of lavender, half a drachm of oil of cloves, half a drachm of aromatic vinegar, six grains of musk, and one pint and a half of spirit of wine.
644. ROSEMARY POMATUM.-Strip from the stem two large handfulls of recently gathered rosemary; boil it in a copper saucepan, with half a pound of hog's. lard, until reduced to four ounces, strain it, and put in a pomatum pot.
645. HOW TO MAKE COLD CREAM. -Take half an ounce of white wax, and put into a small basin, with two ounces of almond oil. Place the basin by the side of the fire till the wax is dissolved in the oil. When quite melted add two ounces of rose water. This must be done very slowly, and as you pour it in beat the mixture with a fork to make the water incorporate. When all is incorporated the cold cream is complete and you may pour it into jars for future use.
646. ROSE WATER.- When the roses are in full bloom pick the leaves carefully off, and to every quart of water put a peck of rose leaves; put them in a still over a slow fire; and distil gradually, then bottle the water; let it stand in the bottle three days, and then cork it close.
647. MILK OF ROSES. - Mix four ounces of the oil of almonds, with half a gallon of rose water, and then add forty drops of the oil of tartar.-Stanley.
648. MADNESS 1 N CATS.-Having met with a friend who told me that, about six weeks ago, a cat belonging to a lady of his acquaintance had been ill, it having wasted away to a considerable extent, and
had bitten a little girl a short time previous to death, I take this opportunity of assuring the lady that she need be under no apprehension as to any danger to the child. The facts brought under my notice are these. The cat was out of sorts at the season of changing her coat, and from some constitutional derangement, probably occasioned by something she had eaten. In addition to the usual change in the coat, it came off to an unwonted extent. Such cutaneous afflictions are often accompanied by irritation, and on these occasions all animals (cats among them) will continually lick the skin. In thus applying a momentary remedy, much hair or fur is collected by the tongue, and thence transferred to the stomach, where, from its being indigestible, it gathers into a ball; and from irritation through the stomach to the brain, the patient frequently becomes insane and violent, often runs away and leaves her house, falls from giddiness into the water, when she goes to drink, and bites and scratches any hand to which she gains access. A bite from a cat thus suffering bears no more danger with it than that which usually attends a wound of any sort. Festering inflammation, and lockjaw may be induced, but not the fatal malady known as the hydrophobia. If the child has recovered from the bite, and the place is healthfully healed, the lady need not be under the slightest apprehension of any further consequences. Some time ago that very clever contributor "Diana" (whose effusions do not appear sufficiently often) touched on this matter. I would advise castor-oil to be administered to the feline race under such circumstances, and even one or both of the ears to be cropped sufficiently to produce a flow of blond. In spring, cats are often seized with an attack, which, from the numbers suffering, seems to be of an epidemic character ; but the real source of the malady lies in the change of the coat, and the quantity of hair taken into the stomach. Cats thus afflicted, precisely similar with the common notion in regard to simply distempered but insane dogs, are generally pronounced mad, and their bite dreaded by people ignorant of cause and effect. Nevertheless, they have not the hydrophobia, their bite would not communicate it, and numbers of them
thus afflicted often recover. I repeat, the lady need not remain under any serious apprehension as to the effects of the bite on the little girl.-Grantley F. Berkeley.
649. PUMPKIN SOUP.-Take a knuckle of veal and a knuckle of ham. In absence of the veal, use a calf's foot or a cow-heel, or even some bones; and, in place of the ham, use part of the hock of bacon. Cut and chop these up; put them into a two-gallon stew-pan; then add to them two large onions sliced, one carrot, two middlesized turnips sliced, with skin on, the outside leaves of a large head of celery cut into small pieces, one teaspoonful of ground allspice, one tablespoonful of salt, and a piece of butter the size of a walnut. If marrow can be had, use it instead of butter. In fact, for all kinds of soups, where butter is recommended, marrow is preferable, only in larger quantities. Place the stew-pan on the fire; keep stirring the contents with a wooden spoon, to prevent it sticking to the bottom of the pan, and until there is a kind of white glaze on the pieces of meat ; then add, by degrees, one gallon of hot water ; peel and take out the seeds of a pumpkin about six pounds in weight; cut it into pieees, and put it into the stew-pan; boil until the pieces of pumpkin are quite soft; pass as much as possible of the contents of the stew-pan through a coarse hair-sieve; then boil it again, adding more water if too thick. Season it with a tablespoonful of pounded sugar, a teaspoonful of pepper, and more salt if required. Serve in a tureen, with some fried bread cut the size of dice. This soup is preferable to soups of the pea kind ; it cools the blood, and causes the deposit of the acid humours of the body. Pumpkins may also be dressed as a vegetable by being cut into slices, boiled in plenty of water, with some salt in it, drained well when done, and served on some toast, with melted butter made with cream poured over it. Pumpkins may likewise be pickled, by cutting them into slices, and proceeding the same way as for Indian pickles, or it will do to mix other vegetables for piccalily.
650. BRAIZED GOOSE.-Truss the goose for roasting. Take two heads of celery, one Spanish onion, or two common onions, previously boiled, so that the flavour shall not be too strong; and boil
them with the liver of the goose in a small quantity of water, and a little butter, pepper, and salt; when done, chop them up; shake over it some very fine powdered sage. or the same seasoning used for sausages ; add the same weight of bread-crumbs, and mix altogether with the yolk of egg. Stuff the goose with this. Then take a large stewpan or a small fish-kettle ; put in it a drainer, so that it stands about half-an-inch above the bottom ; then add three heads of celery, three carrots, three turnips, three largeonions, all in slices; on this place about three pounds of lean beef. Then cover the back of the goose with some of the leaves of celery, and thin slices of fat bacon, which must be tied over it ; place it on the meat; throw in the giblets, and two quarts of water, pepper and salt, and place over a slow fire for three hours, keeping the cover of the stew-pan well closed down; it may even require a weight upon it. When done, take it out on a dish; remove the string, bacon \&c. ; strain the gravy out of the stewpan ; remove the fat; thicken it with a little flour; if not brown enough, add a little ketchup; give it a boil ; flour over the goose and serve. Apple sauce may be used with it. What remains in the stew-pan is very excellent with the giblets, as a stew the next day; or the remains of the goose may be stewed in it for another day's dinner.
651. THE BEST WAY TO DRESS TOMATOES.-Cut them in slices, and place them in layers in a flat dish, with plenty of pepper and salt, and a little butter ; cover them well with bread crumbs, and bake them in the oven till quite brown. They should be eaten with roast meat, and are very delicious.
652. SOUND.-Philosophers distinguish between sound and noise; thus those actions which are confined to a single shock upon the ear, or a set of actions circumscribed within such limits as not to produce a continued sensation, are called a noise; while a succession of actions which produce a continued sensation are called a sound. It is evident from the mechanism of the ear, so far as it is understood, that it is a refined contrivance for conveying a motion from the medium which surrounds it to the auditory nerve; and that this nerve must receive every motion excited in the tympa-
num. Every motion thus excited, however, does not produce the sensation of sound. That motions may be audible, it is necessary that they impress themselves upon the medium which surrounds the ear with velocities comprised within certain limits. These motions are commonly produced by disturbing the equilibrium which exists between the parts of a body. Thus, for example, if we strike a bell, the part which receives the first impulse of the blow is driven nearer to the surrounding parts; but, the impulse having ceased, it is urged back by a force of repulsion which exists in the metal, and made to pass beyond its former position. By the operation of another property of the metalnamely, cohesive attraction, it is then made to return in the direction of its first motion, again, beyond its position of repose. Each of these agitations influences the adjacent parts, which, in turn, influence those beyond them, until the whole mass assumes a tremulous motion; that is, certain parts approach to and recede from each other ; and it only recovers its former state of repose, after having performed a number of these sonorous vibrations. It is evident that such vibrations as are here described must result from the combined operation of attraction and repulsion, which, together, constitute the elasticity of solid bodies.
653. PORK PIE WITH APPLES BOILED.-This is a very nice and economical dish of this period of the year. Cut the meat from the spare-rib of pork, in pieces of about four inches long, and two wide ; and then mix in a plate some pepper, salt, and powdered sage; sprinkle a little on each piece of meat, then roll it round about the size of a thumb; put them on one side for a moment; then get a pie-dish; lay on the bottom some slices of potatoes about half-an-inch thick; over them some slices of onions cut thin; over these some slices of apple about the same thickness as the potato. If the pie-dish is deep, another layer of each is required; then place over them the meat rolled up; cover it with a nice pudding paste; tie in a cloth, and boil in a fish-kettle; a pie in a twelve-inch dish will take one hour. This is much more economical than baking or roasting the spare-ribs. The bones can be boiled for
stock. This pie will do caked, but is not so good
654. TIME FOR FELLING TIMBER. The best time to fell ash, elm, sycamore, and beech, is from November to February. The ascending sap is then nearly dormant, and, consequently, the wood is closer, drier, and firmer, and the wood is not so liable to rot so soon as when the felling is done during the growing season. Oak, on account of its valuable bark, is managed differently. When the ascending sap is rising and flowing vigorously, the bark easily separates from the wood, and then the peeling season commences. Some foresters fell the oaks, then, for the convenience of more easily stripping off the bark; but that method injures the wood greatly. The bark should be taken off, and the trees allowed to stand bare till the autumn. This hardens and dries the wood and it is improved thereby.
655. GREEN APRICOTS.-Lay vine or apricot leaves at the bottom of your pan, then fruit, and so alternately till full, the upper layer being thick with leaves; then fill with spring water, and cover down, that no steam may come out. Set the pan at a distance from the fire, that in four or five hours they may be only soft, but not cracked. Make a thin syrup of some of the water, and drain the fruit. When both are cold, put the fruit into the pan, and the syrup to it ; put the pan at a proper distance from the fire till the apricots green, but on no account boil or crack: remove them very carefully into a pan with the syrup for two or three days; then pour off as much of it as will be necessary, and boil with more sugar to make a rich syrup, and put a little sliced ginger into it. When cold, and the thin syrup has all been drained from the fruit, pour the thick over it. The former will serve to sweeten pies.
656. A RECEIPT FOR MAKING A QUICK EVERGREEN HEDGE.-Plant strong white thorn three to four feet in height, say eight inches apart, and lay them thus, XXX; place a row of tree box on the outside, and a row of evergreen privet on the other, and you will soon have a hedge that a bear will not penetrate. The use of the box is to keep it close to the ground. If standard scarlet thorns are placed about thirty feet apart they will add to its beauty.
657. CIDER WINE, OR ENGLISH TOKAY.-To about sixteen gallons of cider add one quart of elderberries, about twentyfive pounds of honey, and six pounds of sugar, and ten ounces of red tartar. Boil it, and allow it to ferment in a temperature of about sixty degrees; when done fermenting then add half-an-ounce of cassia, half-anounce of ginger, and five quarts of brandy. Place it in a barrel, and fine with isinglass, or two whites of eggs. Bottle when clear, and in twelve months use it.
658. CIDER FOR BOTTLING.-Take out of a fnll hogshead of cider six gallons; dissolve in some of the cider twenty pounds of loaf sugar ; add it, with three gallons of pale brandy, to the cider in the hogshead; leave the bung out in case it should ferment ; if it does, rack it into another cask, in which a brimstone match has been burnt, filling it up with cider previously taken out; when it has settled, fine it with half-a-gallon of skimmed milk. In about a week it will be fit to bottle. Cork and wire it, like champagne; bin it in sand, so that every bottle is covered, and in a cellar of from fifty to sixty degrees of temperature. In nine months it will be a most excellent imitation of champagne.
659. STILL PERRY.-To each gallon of perry add one pound of barley-sugar ; allow it to ferment, then cask it. If it wants to ferment again, rack it, and boil a small quantity ; allow it to get cold ; add it to it, with one gallon of pale brandy to every twenty gallons of perry ; one-eighth of an ounce of essence of almonds; one-sixteenth of an ounce of essence of cloves; half-a-pound of common white tartar; fine it with isinglass ; let it settle ; and bottle for use. The older it is the better. If the colour is required brown, like brown sherry, add some burnt sugar; or of a red colour, like the French St. George, add to every twenty gallons of perry, one pound of red tartar, one pound of extracts of log-wood, twenty pounds of sugar, half-an-ounce of essence of ginger, one-and-a-half gallon of brandy. Let it remain twelve months in cask. As the colour of log-wood varies very much, the best plan is to try a small quantity at first.
660. APPLE BUTTER is an excellent dish for tea, supper, or dessert. It is more used on the continent than with us, and
placed on the table like orange marmalade is in Scotland. Take one bushel of sweet apples, peel, and quarter them, remove the core and pips; put them into a stew-pan over a gentle fire, or a small charcoal stove, or a gas-burner would be preferable, as it is an operation which requires time. When boiling, and the apples begin to be soft, add the juice of three lemons, one pint of rum, and one pound of loaf-sugar, dissolved in a quart of water ; boil it up; pour it into jars ; cover with bladder, and keep for use. The flavour may be altered according to taste.
661. CELERY SAUCE.-Take one head of celery, well washed ; cut it into pieces of one inch in length; boil them for twenty minutes in just sufficient water to cover them; then add some melted butter, a little pepper and salt; give it a boil; and just before using it break in the yolk of one egg well beaten up. This may be served with boiled poultry.
662. COOKING CELERY.-In cooking celery great care should be taken as regards the water, celery being as good, if not better a test of the hardness of water as tea. A head of celery has been cut in two, and onehalf has been boiled in one water, and the other in another over the same fire, at the same time; one would never get soft or give its flavour to the water, whilst the other would do it in the proper time. All cooks, when going into a new place, should try the water with celery; it is better than any other vegetable, although the same may be done with French beans, or carrot.

> 663. CHARADE.
> See on my lofty first tuporne, The ancient conqueror ride; Or Pat at Ballyshanannon fair, With Biddy by his side. Take all the English, rich and poor, To oform my mighty second; My whole may in your garden grow, And beautiful is reckond.- M. K.
> CAR-NATION.
664. Why was the sculptor of the Greek slave a thief?
Because hc chiselled her out of her clothes.
665. Why is it impossible to starve in the desert ?
Because of the sand-which-is in it.
666. But how came the sand-which-is in it?

Because Ham went there, and his descendants mustered and bred.

## 667. PHENOMENA OF JULY.

" When Chateaubriand returned from those tropical regions where the deep blue of the heavens presented a continual sameness, he rejoiced to see again the clouds of his native skies, serenely beautiful, and
it is well to become acquainted with the nature of those aqueous vapours, and the sources from which they originate, that our understandings may be enlarged, and that we may intelligently praise that gracious Being from whom all loveliness emanates who is the source and well-spring of what-


CUMULUS, ÓR PILE Cloud.
soothing the mind of him who gazes upwards with thoughts of peace."
668. Thus spake an aged man to his young companions, as they went up a rocky path to the summit of Malvern.
669. The way was somewhat toilsome, but when they reached the highest point, a glorious panoramic view of hill and dale, of woods and fields, burst upon the view; yet not less varied were the heavens in their
ever tends to elevate the mind of man, or minister to his intellectual pleasures."
671. Vapours arise from off the earth, yet not from marshy places only, but from ploughed fields and plains. A slight degree of cold imparts to those exhalations a visibility which enables us to distinguish them when, assuming the character of clouds, they float across the heavens, drifted by the winds at different elevations,


CUMULO-STRATUS, OR TWAIN CLOUD.
diversity of clouds, than the beauteous and sunny landscape that lay spread beneath them.
670. "Here, then," said the old man, "we will rest awhile, and take note concerning the beauty of the clouds, for surely
with every variety of form, and considerable difference of colour. The Arabs gracefully denominate them "water urns of the firmament;" and when they have silently performed their assigned ministry, either with gentle showers or heavy rain,
they, as silently, pass away. From them our fruitful seasons are derived; they refresh the earth and cause it to spring forth and bud, that it may give seed to the sower, and bread to the eater. Who does not remember the delight with which rain-drops-heralds of coming showersare hailed in hot weather, when the flowers hang their heads upon the ground, and the parched earth is cracked by long continuance of drought; or when, as sung the poet, we listen to the rain at night : -
"The mighty rain, is falling, at this still and solemn hour,
Silent, and yet sonnding, with its own unearthly power;
Its power to call forth green leaves, from the parch'd and wither'd bough,
Bright flowers from the burnt earth, where all is barren now.
Oh! the earth was parched sorely, when I looked forth at eve,
In the hot and dewless twilight, for no cooling wind did breathe;
And scarce the weary bird might chant his vesper song,
And the scant rill was faintly heard as it pass'd the meads along.
But the rain is falling now, with a deep and solemn sound,
Clear streams are bursting forth in the dry and parched ground;
Hark to their gentle murmur in this lone and silent hour,
When men are stilly sleeping, and the mighty rain hath power!"
672. A distant shower has just fallen, and very beautiful is the effect which it produces. Yon village, with its old grey church and rookery, is obscured by the passing over of a majestic cloud, from which rain is descending like a torrent. Now the cloud begins to melt away, its blackness gradually disappears, and the sun again shines forth, lighting up the dripping landscape with a vivid radiance, and causing even the smallest wayside weed to sparkle in his beams.
673. The dark cloud which seemed to disappear has, however, taken a different character, and becomes a Cumulus, or Pile-cloud-the painter's cloud, of which the exquisite modifications are now before us, heightening the beauty of the heavens, and reflecting a silvery light. Observe its peculiarity of form, its fleecy, irregular, and fantastic outline; no two clouds belonging to this division are alike, and yet
they cannot be mistaken; they often resemble rocks piled on rocks, and many an accurate observer of nature has been surprised when, journeying for the first time through a comparatively level country, he has seemed to see a line of hills stretching across the horizon, with woods and glades, and broad rivers flowing majestically amid alpine solitude, till lost in the far distance. Often, too, in the calmness of a summer evening, what glorious landscapes appear to verge on the horizon, presenting the aspect of inland lakes in all their loveliness and repose, and mountains that reflect the hues of the setting sun! while here and there, some opening among the hills reveals a brighter and more radiant scene, fit for angels' feet to tread - for assuredly its brightness is such as earth owns not.
674. A very peculiar and exquisite modification of the Cumulus rises before my mental view at the present moment. It was such as I never before witnessed, though an ardent admirer of cloud scenery from my childhood, and was such as required a combination of circumstances in order to produce a full effect. Summer had just commenced, the heavens were cloudless towards the zenith, the sun was high without any declination of his beams, and not the slightest vapour was perceptible. It was delightful to be in the open air; and having left the house to admire the profusion of roses which the garden presented, I saw full in front a magnificent range of icelike mountains, sharp and angular, and of the most dazzling whiteness, apparently about half a mile distant, and lifting their conic peaks in striking contrast to the azure of the sky. The illusion was perfect, and the effect was considerably heightened by a sweep of noble trees and bushes on the right, and in the middle distance, above which the snow-clad peaks of the seeming ice mountains were conspicuous. Thus they continued during a full half hour ; after which they might be seen journeying along the horizon westward, kindling towards evening in the rays of the setting sun, and presenting an unspeakably glorious assemblage of every ${ }^{\text {th}}$ form and hue.
675. Such are the effects produced by the Sonder-heap, or Pile-cloud, for these are the different names which persons, who delight
in noting aërial scenery, give to this beautiful modification.
676. The nearest resemblance to the Pile-cloud is presented by the Cumulo. stratus, or Twain-cloud. This cloud differs somewhat from the one already described, and is rarely productive of those strange fantasies, such as Shakspere took notice of in his day-

> "Sometimes we see a cloud that's dragonish, A vapour sometime, like a bear or lion."
677. The twain is now visible on the horizon, over yonder range of hills. The base, if such it may be termed, of that which is in itself baseless, is mostly level, while the superstructure either overhangs the base in fleecy protuberances, or else assumes a mountainous character, resembling in this respect the conformation of the Heap-cloud, and yet differing from it in superior altitude. Two elevations of equal, or slightly different height, frequently appear as if united by a drawbridge, over which the steps of celestial messengers, descending towards the earth on errands of mercy, might be thought to pass. And, again, two mountainous clouds seem to rise majestically from a single base. Long ranges also often rest upon the hills, and when thus stationary, they generally indicate a change of weather, and thus frequently recal to mind the beautiful embodyings of the poet-
"Pleasures there are
That float across the mind like summer clouds Over a lake at eve. Their fleeting hues The traveller cannot trace with memory's eyes, But he remembers well how fair they were $\frac{\text { wer }}{\text { Hew }}$ Herdis.

Hurdis.
678. High in heaven, and nearly at the zenith, appears a modification of that elegantly curling and flexuous vapour which is called the Curl-cloud, and which generally occupies the upper region of the atmosphere, where it resembles innumerable banners floating upon a light-blue sky. The Curl-cloud, varying according to the state of the air, indicates rain; when, after a long continuance of fine weather, it becomes a fine white fleecy line stretched at a great elevation across the sky, it portends a gale of wind; when, floating at its usual lofty elevation, its curling and feathery trains are directed to the same quarter of the heavens for some days, as if denoting
the point from which to expect the coming gale. In warm and variable weather, when light breezes sport among the clouds, that same flexuous vapour, ramifying athwart the blue expanse in long and obliquely descending bands, often unites distant masses of clouds, and presents an extremely beautiful combination of aërial imagery ; most welcome, too, for the Curlcloud often predicts soft showers, as already mentioned; and thus in sentiment, if not exactly in words, has the talented historian of British birds spoken concerning it :-
679. "But, on some day, before there is a cloud in which Hope can place her bow and limn its hues, the white flag of Mercy is hung out in the higher heavens, floating with easy folds from the south-west, indicative of victory over the desolating east; and as the day declines, little clouds flit joyously on ready wings, as if fetching the pitchers of heaven from the four corners of the sky, to refresh the weary earth, and make glad all thirsty creatures. Truly the the earth rejoices; echoes that haunt the wood-side soften and mellow the tumultuous sound of joy that is heard from sealed springs when leaping from out their prisons ; nay, the whole creation is attuned to harmony, even as an instrument of music by a skillful hand; the groves are in song, and that not only by day but night, for the nightingales and blackcaps, woodlarks and willow wrens, vie with one another in producing the sweetest melody; and when morning dawns, other of Nature's choristers carry on the strain, ceasing not, though thunders are abroad, and heavy rain-drops patter on the leaves of trees; or if they cease for a brief space of time, when red lightning flashes through the woods, they presently commence again, and sing blithely all the live-long day."
680. Another and most elegant modification is the Cirro-cumulus, or Sonder-cloud, consisting of innumerable small and welldefined orbicular clouds, lying separately from one another, and yet near. Bloomfield speaks of such, in his Farmer's Boy, as a-

> "Beauteous semblance of a flock at rest."

And when the moon passes in her fulness among them, silvering each small cloud, and causing it to stand forth as if in mild relief,
the effect is indescribably lovely. In summer, the Sonder, or Separate-cloud, generally indicates increasing heat, attended by mild rain and a south wind; but in winter, it commonly precedes the breaking up of hard frost, succeeded by foggy and wet weather.
681. Few combinations are more pleasing to the eye; and thus elegantly are the
trated as wavy bars and wedge-shaped streaks, their appearance indicates ungenial weather. Our country people, who know nothing concerning the systems of Howard, Toster, or Fresnel are yet well acquainted with the changing forms of this warning cloud. "It will be wet to morrow," they often say, when, looking towards the heavens, they observe the Wane-cloud on


CIRRUS, OR CURL CLOUD.
thoughts which they often suggest embodied by a modern poet-
"Unclouded was the deep serene Of heaven's dark azure, save where seen Around the moon, soft fleeces roll'd Bright with the livery of their queenThe snowy flocks of Cynthia's fold. One might believe, on such a night,
Good angels choose that silvery car,
To watch, with looks of heavenly light, Their mortal charge on Earth's pale star."
the horizon; and you seldom or never find that they are mistaken.
"Wet weather seldom hurts the most unwise, So plain the signs-such prophets are the skies." Virgil.
683. Those peculiar reflections of the solar and lunar rays, called halos or mock suns, usually appear in this kind of cloud.


CIRRO-CUMULUS, OR SONDER CLOUD.
682. Frequently unwelcome is the Cirrostratus, or Wane-cloud, warning of rain or snow, according to the season of the year. This cloud is distinguished by its flatness, and great extension in proportion to its height; it is seen either in wavy bars, or streaks, or small rows, or little curved clouds, that uniformly precede storms, but whether stretched athwart the heaven in extended and vane-like forms or concen-
"Look! when the moon appears, if then she shrouds
Her silver crescent in long waning clouds, She bodes a tempest in the raging main, And brews for fields impetuous clouds of rain."
684. In the morning, also, if a Wanecloud is above or across the sun, there is uniformly rain before the evening.
"For if he rise unwillingly to his race, Clouds on his brow, and lines across his face.

Or if through mists he shoots his sullen beams, Frugal of light, in loose and struggling streams, Suspect a drizzling day, with southern rain, Hurtful ,"o fruits and flocks, and promised grain." Virgil.
685. There is likewise another cloud, of which the ministry is rather beneficial to the earth, than serving to heighten the beauty of the heavens. This is the Nimbus or Rain-cloud, which is more frequently a
gloomy moments pass away, and are suc. ceeded by such as render the heart glad, so those water-urns of the firmament pour forth their contents, and become extinct, leaving the firmament unveiled in its clearness, or else varied with light fleecy-looking clouds.
686. In tropical regions, Storm-clouds are singularly diversified, but whenever seen


CIrro-stratus, or wane cloud.
deepening of shade in the Twain-cloud, occasioned by its increasing density, than a new modification depending upon a separate change of form. The Curl and Pile-cloud may increase so much as to obscure the sky, and yet pass away without melting into rain; but when the Twain-cloud, losing its mountainous appearance, concentrates and assumes a
they possess a peculiarity of character by which they are too surely identified in those widely-extended and apparently interminable plains, which pertain to $t$ e interior of Africa, a single cloud is frequently the precursor of tremendous storms ; such also is the case on the Asiatic steppes and deserts; and those of America, which, like the ocean they resemble, fill the mind


NIMBUS, OR STORM CLOUD.
sullen aspect that yields to grey obscurity, it becomes evident that a fresh arrangement has taken place in the aqueous particles; the Nimbus or Rain-cloud is then formed, and rain begins to fall. Silently, and yet soundingly, descends the solemn rain, refreshing the parched earth, and causing the seeds to germinate; the heavens are covered with clouds, and the sun no longer shines forth; but as in life the most
with feelings of infinity, and thoughts of the deepest interest. In each of those wild and desolate wastes, where no ruin recals the memory of earlier inhabitants-no carved stone nor fruit-tree, once the care of a forgotten husbandman, but now wild, speaks of the art or industry of former generations. Those solitary clouds, uprising from the margin of the plain, and taking their place on high, are preceeded and
accompanied by indications that cannot be mistaken. Humboldt relates, that when, after a long season of almost intolerable drought, the raging season, or some tornado is at hand, the deep blue of the hitherto cloudless sky, that over-canopies the vast prairies of South America, gradually becomes lighter; at night the dark space in the constellation of the Southern Cross is hardly distinguishable; the soft phosphorescent light of the Magellanic clouds fade away; and some of the largest stars alone shine with a trembling and less vivid light. Then comes the warning cloud, at first appearing small as a man's hand, or else rising like a mimic mountain perpendicularly from the horizon; vapours succeed, and spread over the sky, and loud thunders roll through the immensity of space; down comes a torrent of sonorous rain, and presently the previously barren waste begins to exhale sweet odours, and innumerable grasses speedily spring from out the earth. Sensitive-plants unfold their leaves, and water-plants hold their mimic cups to catch the streaming shower; where all before was silent, the songs of innumerable birds carol forth their praises, and vast herds of cattle, with flocks of sheep, and troops of wild horses, graze, in the full enjoyment of life, amid the tall springing grass and bushes, which seem as if they previously had no existence.
687. Such was the cloud which Elijah saw from the summit of Mount Carmel-that little cloud which arose from out the sea, apparently of no importance, but surely indicating the approach of a heavy storm. And so it was ; "for while the prophet gave directions to his servant, the heavens became black with clouds, and there was a great rain."
688. Voyagers relate, that off the coast of Africa, depressing heat, and apparent stagnation in the atmosphere often precede a tumultuous assemblage of clouds, which gradually, and as if by unanimous consent, hurry towards the east, where they remain stationary, and form a long low arch, extending over about six points of the compass. In proportion as the lower edge of the arch becomes defined, and increases in intensity of darkness, so may the rising of a tornado be expected. When the arch is completed, a sudden squall of wind bursts forth, and
woe to the vessel that is exposed to its fury, if every timely precaution has not been taken to ensure her safety! Again all is still, as if sea and sky awaited some overwhelming catastrophe; but this is of short duration. The unnatural stillness is broken by a solemn preparatory note of distant thunder, accompanied by fitful flashes of lightning; to this succeeds loud rattling peals. Imprisoned winds seem to rush through the low dark portals of that awful arch; their approach levels all distinctions among the waves, which are lashed into foam, and produce a bewildering mist, that renders every object indistinct. Meanwhile, rains descend like torrents, and the hurricane is at its height.
689. Clouds, therefore, are messengers to man. They forewarn the husbandman and the sailor of coming storms, or denote pleasant weather, and awaken thoughts of gladness and serenity. Luther, looking out from his solitary castle in the middle of the night, thus religiously spoke concerning them :-"Long flights of clouds sail throughout the great vault of immensitythey are voiceless, huge, and take all forms. Who supports them? None ever saw the pillars of heaven, yet both the heavens and its unnumbered clouds are upheld. God bears them up. We know that He is great, that He is good, and we learn to trust where we cannot see."

## 690. TO CLARIFY SUGAR FOR

 PRESERVES.-Break as much as required in large lumps, and put a pound to half-a-pint of water, in a bowl, and it will dissolve better than when broken small. Set it over the fire, add the well-whipt white of an egg ; let it boil up, and, when ready to run over, pour a little cold water in to give it a check; but when it rises a second time, take it off the fire, and set it by in the pan for a quarter of an hour, during which the foulness will sink to the bottom, and leave a black scum on the top, which take off gently with a skimmer, and pour the syrup into a vessel very quickly from the sediment.691. GOOSEBERRY JELLY.-Dissolve and boil loaf-sugar in about half its weight of water; let it cool, and add an equal weight of gooseberry juice, then boil for a few moments only.
692. GREEN GOOSE ROASTED.-A green goose will not take more than threequarters of an hour at the fire. Unless it is particularly liked it is not usual to put anything into it but a little pepper and salt (if so, a seasoning made thus :-Take two large onions, cut them very small; a stem or two of sage, cut up with the onions; add a few bread crumbs, and put it into the goose). A little gravy in the dish, and some in a boat. There must be green sauce in another boat, made thus:-About half-a-pint of veal broth, the juice of a lemon boiled up for six or seven minutes; then put in some juice of spinach, enough to make it green, and just boil it up; stir it all the time for fear it should curdle, which it is apt to do, and it ought to be very smooth.
693. TO STEW GIBLETS.-Scald and clean them well; cut off the bill; divide the head; skin the feet; stew them with water (enough for sauce), a sprig of thyme, some whole black pepper, and an onion; let them do till very tender; strain the sauce; add a little catsup and flour, if the sauce is not thick enough ; lay sippets, toasted, round the dish.
694. GIBLET SOUP.-Having your giblets scalded and cleaned (as for stewed giblets), boil them until they are very tender in two quarts of stock gravy. In another saucepan, by themselves, put some winter savory, sweet marjoram, sweet basil, three small onions, a little thyme, two carrots, two turnips, a little allspice, mace, and cloves, all beaten fine. Let them stew until the carrots and turnips are done; strain them through a sieve, and put the liquor (being the extraction from the herbs and vegetables) in along with the giblets. Put a piece of butter into a saucepan, melt it and shake in as much flour as will thicken it ; stir it till it is smooth, then put in the liquor ; keep stirring it all the time it is pouring in, or it will be in lumps, and then it must be strained through a sieve; put in half-a-pint of sherry, a little Cayenne, common pepper, and salt; then put in the giblets, with the juice of a lemon, and let them stew for a quarter of an hour ; then be ready to put in a few forcemeat balls and a few egg balls, made as follows :-Boil some eggs hard, six or eight, take out the yolks and put them into a mortar, beat them, and then add a spoonful of flour and the yolk of a raw
egg; beat them together till smooth, and roll them into little balls, simmer them in boiling water, and put them in the tureen to the giblets just before they are sent to table. The livers should not be done with the giblets at first, but boiled in water by themselves, and put in with the giblets just before they are taken out of the stewpan the last time.
695. TO CHOOSE DUCKS.-The legs of a duck, when fresh killed, are limber; if it is fat it is hard and thick on the belly ; if it is stale the feet are dry and stiff. The feet of a tame duck are thick, and inclining to a dusky yellow; a wild duck has reddish feet, and smaller than the tame one. Ducklings must be scalded; ducks picked dry.
696. TAME DUCKS ROASTED.-Season them with sage and onion shred, pepper, and salt. Half an hour will roast them. Gravy, or onion sauce as follows :-Peel some onions; boil them in milk and water; put a turnip with them into the pot (it draws out the strength); change water twice ; pulp them through a cullender, or chop them; then put them in a saucepan, with some cream, a piece of butter, a little flour, some pepper and salt. They must be very smooth. Always stew the sage and onion in a little water first, as it prevents its eating strong, and takes off the rawness.
697. DUCKLINGS ROASTED.-They are not to be seasoned; they will be roasted in rather less than half-an-hour. For sauce, gravy, and gooseberry made thus:-Put some coddled gooseberries, with a little sugar, into some melted butter.
698. EGGS WITH CUCUMBERS. Peel some cucumbers; cut them in half; take out the seeds; slice them, and some onion; steep them in salt and vinegar an hour; dry and fry them. When a little brown, flour them ; put to them some good gravy ; let them stew. The sauce must not be too thin : if not tart enough, add a little lemon-juice and pepper and salt, if wanted; poach or fry some eggs, then cut the whites neatly round. Serve them on the cucumbers.
699. EGGS may be served in the same manner, with stewed celery, peas, lettuce, asparagus, endive, or any other roots.
700. TO BOIL RABBITS. - Before they are boiled, hold the heads for a few minutes in a saucepan of water that is boil-
ing, which will prevent the disagreeable look they otherwise have on cutting up; then boil them half an hour or thereabouts, according to their size.
701. SAUCE FOR A Boiled rabBIT. - Peel any quantity of onions, and boil them in a great deal of water; shift your water; let them boil about two hours, and then take them up, and throw them into a cullender to drain. With a knife chop them on a board, and rub them through a cullender, put them into a saucepan, just shake a little flour over them, put in a little milk, with a good piece of butter, and a little salt ; set them over the fire, and when the butter is melted, they will be done; then pour them over the rabbits.
702. TO ROAST RABBITS.-They will take twenty minutes or half an hour, according to the size; hold the heads for a minute in boiling water before they are laid down. For sauce parsley and butter, with the liver parboiled and shred; but they are best stuffed with chopped suet, the liver parboiled and bruised, bread crumbs, grated bread, and a little lemon-peel, chopped parsley and sweet herbs, yolk of egg mixed, pepper, salt, and nutmeg. Gravy in the dish.
703. A VERY GOOD OLD-FASHIONED

DISH.-Put three quarts of water into a stewpan, add a cabbage, a large handful of spinach, a lettuce, three onions, and some thyme, all cut up small; put in two pounds of mutton, and let it all stew until quite tender. Put in six or eight yeast dumplings, and a piece of salt pork at the same time you put in the mutton; about half an hour before you dish up, put in a lobster picked from the shell, with a little Cayenne pepper and salt. Serve in a tureen.
704. VENISON.-Choose venison by the fat; if it is clear, bright, and thick, the clefts close and smooth, it is young, but a very wide tough cleft shows it is old.. If venison has been kept some time, it will first change at the haunches and shoulders; run in a knife, and as the smell is sweet or rank, it is new or stale ; if tainted, it will look greenish, or inclining to be very black.
705. TO KEEP VENISON SWEET, OR TO IMPROVE IT WHEN NEAR CHANGING.-If the venison is very sweet, only wipe it well with a cloth, and hang it in a thorough air; if it is to be kept any time, dry it well with cloths, and rub it all
over with ginger beat to a powder, and hang it likewise in a very airy place. If it is moisty or changed, wash it clean with warm water, and then with warm milk and water, it must then be dried well with cloths, and rubbed with ginger, and wipe it very clean before it is dressed.
706. TO ROAST A HAUNCH OF VENISON.-Put over it a sheet of paper, then a paste of flour and water, over that a sheet of thick paper well tied on; a haunch, if it be large, will take four hours; just before it is sent to table, take of the papers and paste ; flour, and baste it with butter. For sauce, gravy and sweet sauce in separate boats.
707. TO HASH VENISON.-Cut nice slices from the venison you may have left cold, not forgetting to put plenty of fat with it, flour it, place it in a saucepan; pour over it three half pints of stock gravy, a gill of port wine, a little currant jelly, and two table spoonsful of catsup; let it simmer gently, it must not boil, or it will make the venison hard; as soon as it is thoroughly hot, add a little salt and Cayenne pepper; serve with sippets round the dish. There should be currant jelly on table.
708, TO PICKLE ONIONS. - Peel small onions into salt and water, shift them once a day for three days, then set them over the fire in milk and water till ready to boil; dry them; pour over them the following pickle, when boiled and cold:Of double distilled vinegar, salt, mace, a bay leaf or two : they will not look white with any other vinegar.
709. PICKLE WALNUTS. - Put a hundred large double walnuts into a stone jar; take four ounces of black pepper, one ounce of Jamaica pepper, two ounces of ginger, one ounce of cloves, one pint of mustard-seed, four handsful of salt; bruise the spice and the mustard-seed, and boil them in vinegar sufficient to cover them; when cold put it to them; two days after boil up the pickle, pour it to the nuts immediately; cover them close; repeat it three days.
710. GIBLET PIE.-Clean the giblets well; put all the liver into a saucepan with some water, a little whole pepper, an onion, a little salt, and a bunch of sweet herbs: let them stew till tender, close covered; lay a puff paste in the dish, then a rump steal
peppered and salted, then the giblets seasoned, with the liver add the liquor they are stewed in, close the pie, bake it about two hours; when it is drawn pour in the gravy; the steak may be omitted.
711. A BOILED LEMON PUDDING. -Take two large lemons, pare them thin, and boil them in three waters until they are tender ; then beat them in a mortar to a paste; grate a penny loaf into the yolks and whites of four eggs well beaten, half a pint of milk and a quarter of a pound of sugar ; mix all these well together; put it into a basin well buttered, and boil it half an hour.
712. YEAST DUMPLINGS.-A pound of flour, a spoonful of yeast, a little salt; make this into a light paste with warm water ; let it lie nearly an hour ; make it into balls, put them into little nets; when the water boils throw them in; twenty minutes will boil them; keep them from the bottom of the pan or they will be heavy.
713. THINGS IN SEASON IN JULY. -Meat.-Lamb, Beef, Mutton, Veal, Buck Venison.

Poultry. - Green Geese, Duckling, Turkey Poults, Leverets, Rabbits, Plovers, Pigeons, Pullets, Fowls, Chickens.

Fish.-Cod, Haddock, Mackerel, Soles, Herrings, Salmon, Carp, Tench, Plaice, Mullet, Flounders, Skate, Thornback, Pike, Eels, Lobsters, Prawns, Cray Fish.

Vegetables. - Pease, Beans, Kidney Beans, Cabbage, Cauliflowers, Cucumbers, Mushrooms, Carrots, Turnips, Potatoes, Raddishes, Artichokes, Celery, Endive, Parsley, all sorts of Salad, all sorts of Pot Herbs.

Fruit.-Pears, Apples, Cherries, Strawberries, Raspberries, Peaches, Nectarines, Plumbs, Apricots, Gooseberries, Melons.

## 714. SMALL-POX, OR VARIOLA.

There is something so repulsive in the disease now under notice, and so loathsome and revolting in all its stages, that many persons are affected with it by the mere force of their imagination, and from their strong repugnance and disgust of small-pox, actually pre-dispose themselves to the disease they would sacrifice any amount of comfort or fortune to ward off and escape.
715. To this mental terror and relaxing fear is to be attributed much of this disease among the more refined and intellectual
class of society ; persons who, by their isolation from general contagion, and the predisposing causes of disease, poverty, bad ventilation, and dirt, would, in a measure, be otherwise protected from its influence and ravages.
716. These remarks, of course, apply only to adults; and to all such we strongly and earnestly impress upon them the necessity of disabusing their minds of the bugbear of fear, knowing that by so doing they go farther and more effectually to predispose themselves to the assaults of all disease, and this one in particular, than if they had actually entered the sphere of its most virulent contagion.
717. As we have said of measles and scarlet fever, the characteristic symptoms are running at the eyes and diffculty of
breathing in the first breathing in the first, and sore throat and speckled tongue in the latter: so in smallpox nausea and sickness, from the beginning to the end, form the great prognostics of the disease.
718. Small-pox is divided into two forms -the Distinct and the Confluent.
719. Symptoms.-Shivering, thirst, and headache, with nausea or sickness, usually commence the chain of morbid actions; succeeded by heat of skin, intolerance of light, restlessness, great heat of body, full quick pulse, pain in the back and over the stomach. The eyes are red, and the tongue covered with a thick white fur. In weakly children convulsions may occur in this stage, especially if the disease is likely to become confluent. A general tumefaction of the features, chiefly about the eyelids, is also observable. On the fourth day the eruption manifests itself, at first, like the other eruptive diseases, on the face and neck, gradually extending over the whole body, so as frequently not to leave an inch of skin without its distinct papilla.
720. The eruption in small-pox has three distinct forms or stages in its progress to maturity :-
721. 1st. The papillary; when the rash appears like small red pimples, in which state it continues from the fourth day, on which it shows itself, to the sixth, gradually increasing in size, when the-
722. 2nd stage is reached. The papillæ, or pimples, now assume a vesicular appearance, resembling small bladders, filled with
a white transperent fluid, with a red margin round each vesicle. On the eighth or ninth day the-
723. 3rd, and last, stage is reached. The vesicles have now lost their globular shape, and have become pustular, and filled with a yellow matter or pus, with a central de. pression in each, while the red line or areola round each has become deeper, and more raised and defined.
724. The puffiness or tumefaction of the features has increased, and in severe cases swells the head to an enormous size. About the twelfth day from the commencement of the disease, and the eighth from the eruption; the pustules begin to break and gradually to dry up, and in four, five, to six days later commence pealing off, and the other symptoms subsiding convalescence usually sets in. Such are the characters and such is the progress of the mild or distinct small-pox.
725. The severe or CONFLUENT, from the Latin words con and fluo, to flow together, because several pustules run into one, forming large patches in some cases as broad as a shilling or florin. This form of the disease is marked from the first by the increased severity of every symptom, especially the vomiting and pain over the stomach, occasional convulsions, and great aversion to light and noise.
726. In the second stage of the eruption, when the vesicles are changing into the pustular form, the confluence takes place, and the inflammatory action of the skin being very great several vesicles converge and blend themselves into one pustule.
727. Treatment.-Both forms of small-pox-the distinct and confluent-demand the same treatment, unless some particular symptom, becoming more intense than usual, calls for a special deviation to meet the urgency of the affected part. From the great heat and inflammatory state of the skin all through this disease, diaphoretics, or medicines to promote sweating, are, as a general rule, contra-indicated-that is, must not be used.
728. The first step to be adopted, with child or adult, is to empty the stomach by a strong emetic, and in men or women of robust constitutions this should be followed by bleeding to the extent of eight or twelve ounces. For children the best emetic is an
equal mixture of antimonial and ipecacuanha wines; say two drachms of each. Of this give an infant of from one to two years a tea-spoonful, following it by as much warm water as the child can be induced to take. If in ten minutes the patient does not vomit freely, or not at all repeat the same dose and a little more water.
729. The object for which the water is given is to make the vomiting easier, and avoid the straining caused by retching. To patients from two to six years old give a dessert spoonful, repeated, if neeessary, at the same time and in the same way.
730. Above that age and to twelve years give a table-spoonful of the emetic wines ; and in the same manner as to the others.
731. If after the second dose, in any case vomiting is not produced in ten minutes from the last exhibition, the finger or feathery part of a quill should be passed over the back of the tongue, when instant vomiting will ensue. In half an hour after the action of the emetic, sponge the body with tepid water, as advice at No. 600, and give one of the following powders every four hours, and a dose varying from a tea to a table spoonful of the saline mixture every two hours.
732. Purgative Powders.-Take of jalap, powdered, two scruples; cream of tartar, ten grains; calomel, twelve grains. Mix well and divide into twelve powders, from one to three years ; into nine, from three to five; into eight, from five to eight, and into six; from eight to twelve years.
733. Saline Mixture.-Take of Rochell salts, commonly known as the tartrate of potass and soda, one ounce; Epsom salts, half an ounce ; dissolve in six ounces of mint water, and add three drachms of ipecacuanha wine. Mix.
734. As a diluent to quench the thirst, let the patient have the barley water drink, as ordered at paragraph 492 .
735. At the period when the eruption is maturing or passing from the vesicle to the pustule, it is sometimes necessary, in weakly constitutions, to assist this change, by giving a little wine and beef tea, which, according to the age of the child, must be exhibited in a proportionate quantity of water.
736. From the first attack, the room should be kept darkened and particularly cool, either by a small fire for ventilation,
or sprinkling the floor frequently with vinegar and water or chloride of lime.
737. To avoid the unseemly consequences of small pox, such as pits and seams, which are caused by the conversion into pus or matter of the fatty tissue below the cuticle, many plans have been suggested; the most favourite one is opening each pustule with a needle and allowing the matter to escape; but the course we have invariably adopted and with success is the application of lunar caustic, which if prepared as directed below, and each visicle touched with a camel's hair pencil dipped in the lotion, will prevent the suppuration and ensure success. The proper time to apply the lotion is in the second stage of the erup ion, when the vesicles are filled with a transparent fluid. Before that time it would be useless, and after suppuration has set in, ineffective.
738. Lotion to prevent pitting in Small Pox.-Take of nitrate of silver, two grains ; rose water, one ounce-dissolve. Let every vesicle on the face, neck, and bosom be touched with a brush wetted in this lotion.
739. Each spot as it dries will become black, but that of course will peel off with the eruption at the proper time.
740. When the eruption begins to dry up, the puddings and farinaceous food, on which in the early stage the patient should be fed, may give place to a more generous diet, though if secondary fever should supervene, as it sometimes does at this crisis, it must be stopped, and the saline mixture again resorted to. As soon as the greater part of the scales and dead cuticle falls off, wash the face frequently with elder flower water, and in the convalescent stage give quinine as ordered at 500 .
741. The most frequent sequelæ or diseases that follow small-pox are inflammation of the white coat of the eye, swelling and inflammation of the glands of the neck, and abscesses or biles on different parts of the body.
742. For the first, bathe the eyes twice a day with a lotion made by dissolving two grains of white vitriol or sulphate of zinc in an ounce of rose water, or if made in quantity, twelve grains to six ounces. For the second, endeavour to dissipate the sweling by rubbing the glands of the neck with an embrocation made by dissolving by the heat of an oven two drachms of camphor cut
small in two ounces of sweet oil. And for the third, poultice the biles with linseed meal frequently.
743. See surgical section, and at the same time, in all cases, keep the bowels open either by the senna mixture 492 , or a dose of castor oil.
744. The diet must also be good and stimulating, and as much exercise taken as is consistent with the age of the patient and the nature of the affection.

## 745. RELATION OF THE SENSES.

Reflection convinces us that enjoyment is the universal end and rule, the ordinary and natural condition of the senses, while pain is but the casualty, the exception, the necessary remedy, which is ever tending to a remoter good, in due consideration to an ever higher law of nature. Here, as in every part of the physical economy, nature has endowed these organs with a direct and particular sensibility to those impressions which have a tendency to injure its structure; whereas they have a delightful anticipation of those impressions which are not injurious.

The ear is formed to receive delicate impressions from those vibrations of the air which realise sound, and acquire a susceptibility of influences by its own appropriate agents, and by no others. In almost every case the impression made upon the sentient extremity of the nerve which is appropriated to sensation is not the direct effect of the external body, but results from the agency of some intervening medium. There is always a portion of the organ of sense interposed between the object and the nerve on which the impression is to be made. The object is never allowed to come in direct contact with the nerves, not even in the sense of touch; for there the organ is defended by the cuticle, through which the impression is made. This observation refers equally to taste and smell, the nerves of which are not only defended by the cuticle, but by secretion of mucous character, which averts any violent excitement. The two senses, which are more relative than others, are the sight and hearing, both of which receive their impressions through the medium of the air.
We feel some hesitation in proceeding further on this interesting part of the
subject, viz., the comparison of the organs of sense and their respective physiological distinctions. If we were to go much deeper, we should soon find ourselves amidst those most interesting distinctions of sense, as delineated by the general animal kingdom -the touch of the ant, the sight of the fish, the hearing of the bird, the smell of the dog, \&c. We would refer our readers to Buffon, Laurence, Hutin, Roget, and Walker, and conclude this part of our subject with but few observations.

Touch furnishes the relation of mechanical bodies; taste is adapted to chemical relations; smell also to chemical relations, but for the perception of substances in the aëriform state ; hearing is for sound and its many modifications, tones which are produced by the internal vibration and motion of the particles of bodies and through the medium of air, \&c. Our subject, the sense of sight, is adapted to light and its modifications, colour and shade, and render to the perception the surface, form, and position of objects through the medium of light.

Sight and hearing seem to bear the most important characteristics, being employed on those objects which form one great basis of human knowledge.

The inhabitants of some parts of the world hear more readily, and see objects at greater distance, than the inhabitants of civilised cities; and this advantage may be traced to the fact, that the former are very much in a state of nature, and therefore compelled to sustain their existence by daily use of the senses of sight and hearing, and have, at times, no better protection against sudden danger than the acute vigilance of these particular nerves. The inhabitant of the ice-bound wilds will be seen suddenly to lie upon his face and put his ear on the ice, by which he will learn what is approaching, though unseen. The wild Bushman can see through marshy vapours, which would entirely eclipse the object from the eye of the European. The savage can detect the footsteps of wild animals or his enemy over mountain pass, over gloomy moor, and midst deep jungles, which would entirely elude the eye of civilised men.

Perhaps a summary of the ability of sight and hearing may be thus stated:-
Sight is adapted to light, colours, form,
shape, numbers, \&c., written language, the works of art and nature.

Hearing is adapted to music, tones of all sorts, matter, quality, rest and motion in time; speech, the feelings, the sympathies, the finite and temporal.

Very often does the philosopher bow down in veneration and praise, in certain epochs of his researches, confounded with the demonstrations which burst before him, and he feels there is nothing of chance, but a constant ruling intelligence over all and all things. The cataract displays no greater wonders to his mind than the stream which warbles by the village bower; the haughty voice of Æulus excites no greater wonder in him than the breeze which trembles on the cordage of the little skiff; for well he knows they equally perform a share in the great manifestation of holy government. The consideration of the fitness of things-their harmony and beauty-is the highest occupation of man. For the preservation and enjoyment of life, many excellent provisions are made; and so complicate are they, that man without these, or any of them, could only sigh and die. He regards the power of his muscles as an obvious palpability, yet science will inform him that every breath he draws, to curse or praise, is realised by a mechanism as complicate and wonderful as that which fells the oak or raises the imperial tower; and that this mechanism is depending on ties and alliances of every order and beauty, all which unite and sym. pathise in the delight of being. The circulation of the blood, the acute jealousy and vigilance of the nerves, the respiratory action of the skin, the delicacy of touch, the luxury of taste, the godliness of sight-all manifest an irrepressible unity and action which no mere power of mind could regulate or exercise.

We are aware that some may only approve of experimental evidence, as if the criterion of all truth were an alembic or air-pump.

How different with the true philosopher! He summonses the principles of all sciences to his aid. He knows that sense must one day be clogged and dull, and that it is but the perceptive power, mind being the retentive. We might illustrate this idea by saying, in vain should we attempt to walk the stream, till the chilling air has bound
the current, and hardened the yielding surface. So does the spirit in vain seek to rest in contemplation, until attributes of the mind have fixed the fluency of sense, and created elements for the support of ligher exercises; or, as the great poet of nature successfully expresses this idea in Richard the Second-

## KING RICHARD.

How soon my sorrow hath destroyed my face!

## BOLINGBROKE.

The shadow of your sorrow hath
Destroyed the shadow of your face.

## KING RICHARD.

'Tis very true; my grief lies all within; And these external manners of lament Are merely shadows to the unseen grief,
That swells with silence in the tortured soul.
Or, as Dante says -
"For when love took his station in my heart, He stood before me, and suggested thoughts ,
Unto my mind, which since have seldom slept." Cansone 18th.
There must be an unity of action in the spiritual, intellectual, and material. It is surely not the figure alone, nor the touch, nor the odour, which makes the rose, but all these governed by the dignity of intellect and the innumerable associations of mind aud spirit, acting simultaneously. We do not deny that the senses perform their part ; yet these would be imperfect and evanescent, but that some higher collective power lays up a store of images and pictures, which is never destroyed.

Cowper pourtrays this creative faculty of the mind thus-

How fleet is the glance of the mind! Compared to the speed of its flight, The tempest itself lags behind, And the swift-winged arrows of light.
When I think of my own native land, In a moment I seem to be there; But, alas! recollection at hand, Soon hurries me back to despair.
Or, as an earlier English poet (Denton) says-
Thus, the lone lover in the pensive shade, In day-dreams wrapt, of soft extatic bliss, Pursues in thought the visionary maid,
Feasts on the fancy'd smile and favoured kiss.
Thus the young poet, at the close of day,
Led by the magic of some fairy song,
Through the dense umbrage winds his heedless
Nor hay, hears the babbling brook that brawls along.
Those who live above the regions of mere
sense, and are seeking communion with the spirits of truth, are accustomed to the contemplation of true beauty, and live amidst agreeable sensations, which not only occupy the imagination, but engage the whole capacities of the mind; and there is not a beauty in nature or art with which they are not acquainted. Every colour, every sound, every star of the night, every dew-drop of the morning, every smile of kindness, every space or expression in which beauty resides, is at once recognised as a portion of the excellence of eternal perfection. Indeed they have an intuitive perception of the beautiful, which excites admiration even before the sensation can be rendered permanent by the operation of judgment. This sensation of the beautiful traverses the whole mind ; but on no occasion does it hold a more ready affection, or produce a more instant interest, than when it regards the outlines of the human form.

It is then the emotion of the beautiful evinces a very exquisite feature, by diffusing itself over the objects which excite it, so as to appear as if it belonged to them, and not to the mind which is occupied in reverie and contemplation. It is then the ardent and enthusiastic enter a dream of love and admiration, from which they are reluctant to awaken. So unreservedly, yet unconsciously, is the transference of life and feeling made from the mind of the beholder to the object beheld, that the refined disciple declares that nature is full of feeling, and animated by one great spirit, whose expression in every aspect is beauty. In a word, the lines of nature, and most especially those inclosing the woman's form, are as lines in the life of beauty itself, varied by the Creator to elicit, with truth and fulness, all our innate sensibilities, which consummate the evidences of our divine fashion and genealogy. The delightful overflowingsor a mother's heart seem to her to be lovely emanations, radiating from the face of her little one. The lover, by the same law of imputation, ascribes all the charms with which his passion is inspired to essences and qualities inherent in the object of his passion. This is one of the characteristics of the emotion of the beautiful. It tends to diffuse itself over the beautiful object ; ana the mind, instead of recalling it, and viewing it as mere inert materialism, regards it as
beaming with light and feeling. In this exercise man learns to decide against all unworthy and vain occupations. His whole being is exalted. He knows God has placed him amidst things lovely and harmonious. In these beatific exercises he is often enabled to realise the relation of the beautiful in our own organisation; and far from such being merely notional, he feels (with evidence suitable to the subject) that the beautiful is the representative of two of the leading economies of our nature, viz., the material system and the intellectual capacity. It is then he declares that nature is the rule and manifestation of mathematics, her part being the apparent and material, whilst spirit dominates over the ideal only, and that there is nothing new in mathematics, in nature, or in man. In man are inherent a spirit and a material nature, which are but transcripts of each other, their laws being consonant. Perhaps we may illustrate this somewhat mystic proposition by reminding the reader, that the crystals of ice are nothing else but water bounded by definite lines; showing (in analogy) the relation between real and ideal, spiritual and material: both are essential to each other, and yet different, the diversity being in form only.

An old English poet, the Rev. Thomas Denton, says-
Tho' now no painted cloud reflects the light, Nor drops prismatic break the falling rays, Yet still the colours live, tho' none appear, Glow in the darting beam that gilds yon crystal sphere.
And in another poem, it is said-
Tho' wondering ignorance sees each form decay,
The breathless bird, bare trunk, and shrivelled flower,
New forms successive catch the vital ray,
Sing their wild notes, or smile the allotted hour: And search Creation's ample circuit round,
And search Creation's ample circuit round,
Thoundes of being change, all life's immortal
found.
So also does the idea of a circle become a real circle, not from the latter emerging from the former, but from this itself becoming manifest. Indeed, all development or realization is nothing new or original, but only a manifestation, by a process of extension taking place in the idea; in truth, the real is the ideal in a condition (as when a pebble is cast into a stilly lake) of definition and limit. The real is to assist the intellectual, in its reflections on the
beauties of creation. Woman, with all her fairy lines and exquisite delineations, her many spheres and expressions, is one of the apparitions of Divinity. Look into the eye of the fair and good-sweet subject for regard! God only knows how many faithful images of Himself are there, though perhaps unseen by some.

The noble Byron had always songs, and sighs, and prayers for woman. We must not forget those words-
$0!$ pardon that in crowds awhile, I waste one thought I owe to thee;
And, self-condemnd, appear to thee; Unfaithful to thy memory!
Nor deem that memory less dear,
That then I seem not to repine;
I would not fools should overhear, One sigh that should be wholly thine.
-Turnley's Language of the Eye.
746. HISTORY AND ADVANTAGES OF THE HEART TREFOIL.-Heart trefoil, or snail-shell Medick (medicago arabica), is a plant which, though indigenous, has probably never been cultivated except in Berkshire, and its history is remarkable. Captain Vancouver, in his voyage round the world, found some seeds in a vessel which had been wrecked on a desert island; and on his return, he gave some of them to his brother, who resided near Newbury. The seeds were sown, expectation was raised to the highest pitch, and botanists anxiously awaited the result, in hopes of being enabled to announce to the agricultural world a valuable plant from the remotest islands of the Pacific ; when, lo ! it turned out to be the medicago arabica, which is a native Berkshire plant. This circumstance, however, was not without its advantages. The two brothers cultivated the plant with success, and found that it produced a luxuriant herbage, and that cattle were very fond of it. It stands the winter well, and a crop of it may be obtained at any time ; it is not easily choked, and will grow on a light soil.
747. STRENGTHENING PILLS. Take of sub-carbonate of iron, a drachm and a half; ipecacuanha in powder, eight grains; aromatic powder, eight grains; extract of gentian, half a drachm ; socotorinæ of ales in powder, two or three grains ; simplesyrup, or mucilage of gum arabic, a sufficient quantity to form the whole into a mass of the re-
quired consistence. Divide into thirty pills. Two or three of these pills are to be taken three times a day. They are of great value as a tonic in indigestion, billious complaints, general weakness, headache, depending upon a nervous or debilitated state of the constitution, and many other complaints where a mild, yet effectual, strengthening medicine is required.
748. GINGER-BEER.-Take of Jamaica ginger two ounces and a half; moist sugar, three pounds ; cream of tartar, one ounce; the juice and peel of two lemons; brandy, half a pint; yeast, quarter of a pint; water, three and a half gallons. This will make four and a half dozen of excellent ginger-beer, which will keep for twelve months. Bruise the ginger and sugar, and boil them for twenty minutes in the water; slice the lemons, and put with the cream of tartar into a large pan. Pour the boiling liquor upon them; stir it well round, and when milk-warm, add the yeast ; cover it over for two or three days, and leave it to work, skimming it frequently; then strain it into a cask, add the brandy, bung down close, and bottle off at the end of three weeks. If it does not work well at first, add a little more yeast, but be careful of not putting too much.
749. PAINTED GLASS'INJURED BY A KIND OF MOSS.-As painted glass is generally protected by grating, it cannot be cleaned on the outside, in consequence of which long continued damp produces a diminutive moss, or lichen, which absolutely decomposes the substance of the glass. This evil would in a great measure be prevented by removing the grating annually, and carefully wiping away the mouldy moss, whenever it begins to appear. It is remarkable that this disease prevails in some situations more than others. Painted glass has been known to remain in a dry situation for centuries uninjured, but on being removed into a moist and foggy atmosphere has lost almost all its beauty in cuirtw years.
750. PORTABLE LEMONADE.-Take of tartaric acid half an ounce ; loaf sugar, three ounces ; essence of lemon, half a drachm. Powder the tartaric acid and the sugar into a fine powder, in a mortar, which should either be stone or marble; mix them together, and pour the essence of lemon
upon them, by a few drops at a time, stirring the mixture after each addition till the whole is added; then mix them thoroughly, and divide the whole into twelve equal parts, wrapping each up separately in white paper. When required for use, it is only necessary to empty the powder into a tumbler of cold water, and fine lemonade will be obtained.
751. TO PRESERVE STRAWBERRIES WHOLE.-Take an equal weight of fruit and pounded loaf-sugar ; lay the former in a large dish, and sprinkle over them half the sugar; give the dish a gentle shake, in order that the sugar may reach the under part of the fruit; next day make a thin syrup with the remainder of the sugar, and add one pint of red currant juice to every three pounds of strawberries. In this, simmer them until sufficiently jellied. Choose the largest strawberries not over ripe.
752. RASPBERRY CREAM.-Rub a quart of raspberries through a hair sieve, take out the seeds, and mix it well with cream; sweeten it with sugar to your taste, then put it into a stone jug, and saise a froth with a chocolate mill. As the froth rises, take it off with a spoon, and lay it upon a hair-sieve. When there is as much froth as wanted, put what cream remains into a deep china dish, and pour the frothed cream upon it as light as it will lie on.
753. TO PRESERVE FRUITS IN BRANDY OR OTHER SPIRITS.Gather cherries, plums, \&c., before they are quite ripe, and soak them for five or six hours, in hard, or alum water, to render them firm, as the moisture of the fruit weakens the spirit. To each quart of spirit add five ounces of sugar.
754. STONES USEFUL IN FIELDS.Some of the arable land along the shore on the south-east coast of Sutherland is almost covered with shore-stones, from the size of a turkey's egg to eight pounds weight. Several experiments have been made to collect them off the land with the view of obtaining a better crop; but in every case the land proved less productive by removing them; and on some small spots of land it was so evident, that they were spread on the land again to ensure their usual crops of beans, oats, or peas.


Fig. 1.
755. THE AQUARIUM.

Снap. I.
History of the Aquarium-Early ExperimentsDerivation of Name.
So much interest having been excited by the newly-discovered method of preserving plants and animals in vessels containing water, we purpose presenting to our readers a series of papers calculated to serve as a comprehensive and practical guide to the construction and management of fresh and marine aquaria.

No drawing-room or garden is now considered complete without an aquarium, and every day adds to its popularity. But, to derive the full amount of gratification and instruction which water vivaries provide for us, it is necessary to devote much time and study for the purpose of acquiring an intimate knowledge of their inhabitants. It is the minutiæ of insect life which is so wonderful, and all its details are worthy of our most careful attention. A large portion of the animal kingdom comes under the
inspection of an aquarian, and an abundance of useful lessons may be drawn from his researches. It will be our object to comcombine both amusement and instruction, and to point out the difficulties as well as the pleasures of the undertaking. Many essays on the subject have already appeared, but we cannot help thinking that the writers have not laid sufficient stress on the necessity for active thought, patience, and perseverance, without which failure and disappointment are the inevitable results. After a few words on its early history, we will proceed to discuss the philosophical principles by which alone the aquarium is to be regulated. Let it be particularly borne in mind that everything in nature has its definite duty to perform, and that an intimate study of the tenants of an aquarium cannot fail to awaken a deep sense of the Almighty's providence and benignity as displayed in all His works, and to raise our thoughts " from Nature up to Nature's God."

History.-Much difference of opinion


Fig. 6.
exists as to the period of the first introduction of collections of plants and animals in water, and several gentlemen have been mentioned as the originators of the idea. There is little doubt, however, that the in. vention of Mr. Ward, for the preservation of plants in glazed cases, first gave rise to the application of the same principles to animal life. Mr. Robert Warington, of Apothecaries' Hall, took the lead in bringing the result of his experiments prominently before the public, in a paper read before the Chemical Society in March, 1850, and in which he stated, that his first experiment was with two small gold-fish and a root of vallisneria, in six gallons of spring-water, the plant being placed loosely in some sand and mud at the bottom of the tank. The plant grew, but the water was soon found to become thick, and the view into the interior was obscured by a coating of mucus adhering to the sides of the vessel. He thereupon introduced a few water-
snails, who soon reduced the water to a clear and healthy condition, by removing the decayed vegetable matter as fast as it accumulated. The eggs of these scavengers served as food for their finny companions.

The subject, once started, was of too interesting a nature to pass without strict investigation, and a signal success has been the result. The idea was warmly espoused by the Zoological Society of London; and in the spring of 1853 , the public was startled with their beautiful collection of marine and fresh-water curiosities. Every one must remember the sensation of novelty and excitement produced by a first in. spection of the marvels of the deep there displayed, and not a few (ourselves among the number) resolved to avail themselves of such an unceasing source of gratification and amusement. We were indebted to Mr . Gosse for the marine specimens there first brought to light, as also for much useful information contained in his works on the
subject, which are, unfortunately, of too expensive a nature to be within the reach of many who would appreciate their contents. Dr. Badham, Mr. Shirley Hibberd, Mr. Sowerby, and Dr. Lankester, have all furnished many valuable hints connected with water vivaries; and we have to thank Mr. Alford Lloyd for his more practical assistance in collecting a most beautiful variety of specimens from all parts of England. Any lover of aquarian pursuits will be well repaid by a visit to his establishment in Portland-road, Regent's-park.

The term "Aquarium" is a contraction of the two Latin words, Aqua, "water," and Vivarium, " a preserve, or enclosure for the propagation of live stock." Vivarium was the name first given to a living collection of water plants and animals ; but,


FIG. 4.
as that term might, with equal propriety, be applied to a sheep-fold or a rabbithutch, the aqua was affixed in order to denote its watery nature. "Aquarium," although equally indefinite (it having been used by the Romans to signify any vessel containing water, from a jug to a reservoir), is now generally adopted, as being more concise and less uncouth than its lengthy predecessor, "Aquavivarium."

Although our experiments have been conducted in a very inexpensive manner, our suggestions proceed, for the most part, from practical experience, but in some instances, we shall have to quote the opinions of other authorities on points which have not come under our own im. mediate observation.

## Chapter II.

Philosophical Principles of the Aquarium-Ph:sical Requirements.
The principal aim for an Aquarian is 0 render the contents of his water-vivay self-supporting; to accomplish which inportant object, it is necessary to possess a knowledge of the chemical principles oy which the balance between the animal and vegetable kingdom is to be obtained.


FIG. 2.
To keep gold-fish alive in the now almost obsolete globes, it was found necessary to have the water constantly changed, which at once proved that something besides water was necessary for their sustenance.

This something was air, without which no mimal life can possibly exist; the water leing insufficient to sustain life after the animals have deprived it of its oxygen. A fountain, or fall of water, will to a certin extent supply this deficiency, but will nct support life for any lengthened period: the reason being, that the fishes give out large quantities of carbonic acid gas, which soan renders the water poisonous. Two things, therefore, are requisite-to supply oxygen, and to extract the carbonic acid gas. Now it is proved that plants will perform both these functions, as they not only give out oxygen in large quantities, but are nourished by the very gases so deleterious to animal life. Carbon is the great basis of all plants, and this they distil from the carbonic acid gas; they also require hydrogen, which they distil from the water, giving off oxygen in both instances. You will perceive this by carefully watching a healthy plant, when you will observe the leaves studded with fine globules of air. You thus establish a constant system of compensation, and render the plants and animals self-supporting. It is frequently asked-if fishes require air, cannot they get it at the surface? Yes; but they are so constituted that they can inhale it only through the medium of water, and in very minute quantities, inflammation and death speedily ensuing when they come to the surface for that purpose. Professor Liebig has also proved that oxygen is supplied by the myriads of animalculæ with which the tank soon becomes stocked, and which serve to supply the smaller fry with food.

Although the plants and animals support each other while living, when they die some other agency will be found necessary to remove the putrifying matter; the glass (as before stated) soon becomes covered with a confervoid growth, which necessitates the introduction of the natural water-scavengers, mollusca, who perform their work quietly and surely, and without whose help decay and mortality would soon ensue. These useful little agents live on the confervæ generated by the plants; but great care must be exercised in their selection, as most of the larger species feed upon the living vegetation in preference to the putrescent matter; and, unless due discrimination be used, you will find your most va'ced
plants destroyed by some ruthless invader in the shape of a lymnea or paludina. Vaksneria is a favourite meal with these marauders.

It is quite impossible to give any rules as to the relative proportions of animal and vegetable life to be introduced into the aquarium ; every one must gain that knowledge from experience; but, as a general principle, we think that three small fish, two or three snails, and one small plant, is the maximum quantity allowable for each gallon of water. It at once denotes bad management when you cannot render the three agencies we have mentioned (combined with light and the proper amount of heat) sufficient to keep your vivary in a flourishing condition. Your aim must be to establish a continuous circle of reciprocal action, which can only be obtained by an exact imitation of nature.

The regulation of the temperature must also be attended to, as aquatic animals are very easily killed by too much heat or the reverse. If a tank is placed in a northerly aspect, it must be carefully guarded from the cold in winter, a tank in a window looking southward being equally liable to injury from excessive heat in the summer. There is little danger if the temperature is never allowed to fall below 45 deg., or to rise above 65 deg . Sunshine is indispensable, but, if it is admitted too freely, will be apt to be fatal to your pets by making the water too warm. Two hours sun daily is as much as we recommend from June to September.

Light is of course indispensable, and must be admitted freely and uninterruptedly, the growth of the plants depending in a great measure on the amount of light to which they are exposed. A marine tank requires much less than a fresh-water one, and it is therefore desirable to place the latter close to the window, as the former thrive equally well at a distance of five or six feet. We shall speak further on this point when treating on marine aquaria.

The water need not be changed at all if your vivaria are properly conducted. Mr . Gosse, speaking on this subject, says: "I have at present at my residence at Islington one marine tank full of animals and plants in the highest condition, the water in which, though as clear as crystal, and


Fig. 5.
quite colourless, has never even been removed from the vessel since it was first put in, two years and two months ago." Mr. Warrington has still in his possession the veritable tank in which he performed his first experiments, and it contains the same water which he introduced in January, 1852.

Chap. III.
Vessels suitable for Aquarian purposes, with Directions for procuring them.
Any vessel that will hold water, from a cistern to a pickle bottle, may be converted
into an aquarium, and the same principles are applicable to both small and large. The most elegant and useful vessels are certainly tanks of a rectangular shape, a much clearer view of the contents being obtained through smooth than through curved glass. Tanks of cast-iron, and stout sheet-glass, may now be obtained at as low a price as 18 s. , and we certainly recommend them as far preferable to circular vessels both for strength, ornament, and utility. There are makers in all our


Fig. 3.
principal towns, and the immense demand and active competition has caused the display of much ingenuity and talent in this department. Fig 1 represents the style of tank most in use, and to persons who can afford the outlay, I should recommend one of that form, about twice as long as it is broad. The four sides should be of glass and the bottom of slate, a perforated cover of zinc or glass being necessary in large towns. An octagon form is well adapted for standing on a round table. (See Fig.2). For marine aquaria it is preferable to have the two ends made of slate also, as the cement for fixing the rockwork will not adhere to glass. We subjoin a list of the
principal makers,* all of whom have always a large assortment on hand. We do not say that a rectangular tank is indispensable, but consider that a few extra shillings will be well bestowed in its acquisition.

We next come to bell-shaped vesssels, which can be obtained at any glass shop at prices varying from 1 s . to 15 s . Those most in use are the common hand-propagating

[^5]glasses, used by gardeners, which must be inverted and supported on a turned wooden stand. (See Fig. 4). Much more elegant vases, however, have lately been manufactured for the purpose, and of a more convenient form than those formerly used. A shape which has been much recommended is that depicted in Fig. 5; it is certainly very graceful, but we consider its narrow base a great drawback, as it neither allows the introduction of rockwork, nor of a variety of bottom plants. Fig. 3 represents a vase which we consider to surpass any other for utility. We have two in use at present, and find the nearly flat bottom a great desideratum. They may be had from twelve to twenty inches in diameter, but we recommend a medium size, as the larger ones are more apt to fracture in frosty weather.

Be sure to choose a vase with a smooth surface, and with as little green tinge about it as possible. The great objection to all circular vessels is, that they distort the objects contained in them, and we must be careful to remedy this as much as lies in our power. For the drawing-room a giltstand is a great improvement.
Confectioners show-glasses may be advantageously used for small specimens, particularly for those which cannot be safely introduced into the aquarium (we shall refer to this subject in a subsequent paper on Water Cabinets).

Mr. Gosse, in his "Hand-book to the Marine Aquarium,"' describes a novel mode of constructing tanks, suggested to him by Mr. W. Dodgson, of Wigton, Cumberland. That gentleman has kindly furnished us with further information on the subject, which we present to our reader, in his own words.
"The earthenware tanks for aquaria, named by Mr. Gosse, in his 'Hand-book,' were made by Mr. Lucock, of Broughton-moor, and hold about thirty gallons each. The earthenware consists of a bottom and ends, thickly glazed inside, with a groove along the inner edges to receive the glass sides. These, of quarter-inch plate glass, were bedded in red-lead putty, leaving about a quarter of an inch of the groove empty, along the insides, where the putty would have to come in contact with the water, and might have been injurious to the plants or animals. This space was fitted up with
cement, made as follows:-Dissolve eigat ounces of shellac in one pint of naphtha or spirit of wine. When wanted for use, stir a small quantity of this solution into a smooth thin paste, with whiting, and apply immediately. If much is mixed up at once it is apt to dry on the outside before it can be used. Where there is not a great body of it this cement will set very hard in a few days, and is not injured by water. When the poisonous nature of red-lead is not an objection, it will form a still harder cement than whiting.
"Before the tanks were burned in the kiln, rough masses of fire clay were attached to the lower parts of the ends and the bottom, in imitation of rockwork. Owing to the porous nature of the clay at Broughtonmoor, and probably in part from the glaze not having penetrated the crevices of the rockwork, the water was found, when they were filled; to percolate through the substance of the tanks. They should therefore be made of closer clay, or the rockwork left out and attached artificially afterwards. Probably it might be an improvement to glaze the outside and not the inside; the parts exposed to the water would then have more the character of real stone. The earthenware cost about 8 s ., the glass 18 s ., for each tank, so that for their size they are cheaper than any other form, and if made of finer clay they would not be liable to leak or get out of order in any way."
We strongly advise any of our readers who may reside in the neighbourhood of potteries to avail themselves of this suggestion. It will, of course, be necessary personally to superintend the construction, as workmen have little idea of what is required.
A very pretty and economical aquarium may be formed at a much less expense than any previously mentioned:-Obtain a deal box, about twelve inches square, and six or eight inches deep (this may be purchased at any grocer's for a few pence), which paint a deep brown or green, ornamenting it in any way your ingenuity and taste may suggest, and cutting a circular hole in the bottom about three inches in diameter. Next obtain your propagating glass (price from 1s. to 2s.), and invert both it and the box, placing the knob of the former in the circular hole. The weight of the water
will keep the vase firmly fixed in its stand, and you will have an aquarium which is in every way useful and ornamental. A very pretty effect is produced by combining the Wardian case and aquarium (see Fig. 2) of which we shall speak more hereafter.

Our next paper will be devoted to instructions for fitting up, and hints on the selection of stock for fresh-water vivaries.

## 756. JULY FOR THE BOYS AND GIRLS.

We are now at Midsummer. The sun beams down benignantly upon us, and warms everything into full and vigorous life. Nature spreads before all her most brilliant attractions, and tempts to field fallow and upland. But in our ever-varying climate it may happen that even at midsum. mer the sky may become overcast, the rain descend in torrents, or slowly drizzling interpose between us and our out-door enjoyments. Anticipating any such contingency, and before considering the sport par excellence of the season, we subjoin a few games for rainy days, and which may also serve to shorten a dull half hour, even in the fields or woods.
757. Consequences. -This may be made a very amusing game. Its essence consists in the fun elicited by certain consequences or results said to follow certain other actions. Three, six, nine, or any larger number may play at it. Proceed as follows :-Procure a few dozen plain cards, or pieces of cardboard or stiff paper, and upon one dozen write legibly the names either of your acquaintances, or which is better, any imaginary personages, such as are shown in the example below. Upon twelve other slips write any action, as-"went for a walk,""took a short nap," \&c.
758. Upon a third set the "Consequences" have to be written. And here an opportunity is given for the exercise of the inventive faculties. In the example it will be seen how very ludicrous the consequences said to follow the acts may be made. When a sufficient number of cards or slips are written, the three sorts should be placed in three baskets or hats, and shaken up. Of course it is understod that the names are in one hat or basket, the actions in a second, and the consequences in a third. Either one player may take a basket to deal, or
partners may do so. The slips being shuffled, the first player dips his or her hand into the basket, and drawing out a card reads it aloud. The second player then does the same, and the third player drawing a card proceeds to read it-prefacing what is upon the card-the consequence-by saying "the consequence was"-so and so.

> 759. Example.
> John, Mary, Iucy.

JoHn (taking out a card, reads it). "The Marquis of Carrabas."

Mary (reading a card). "Took a great pinch of snuff."
Lucy (drawing a card). The consequence was-"He was overwhelmed with melancholy."

John. "The Grand Duke of Brompton."
Mary. "Walked across the square."
Lucy. The consequence was - "His plumed helmet was shivered to atoms.",

John. "The Benighted Beggarman."
Mary. " Rode to the review."
Lucy. The consequence was-" He was refused at the Post-office."
JoHn. "The Great Khan."
Mary. " Whistled a jig in A minor.
Lucy. The consequence was-"He was utterly exhausted."
760. The above will suffice to show how the game has to be played, and a very little ingenuity will be required to make it highly diverting.
761. The Wolf and the Sheep.-The players are ranged in a row; one has to stand in front, who feigns to be the shepherd, but is in reality the wolf. The makebelieve shepherd commences by saying,"Sheep, sheep, off to the fields!" The sheep reply, either altogether, or by the mouth of one who speaks for the rest,"Oh! but we are afraid!" The wolf in disguise then asks-" What do you fear?" The sheep cry in chorus-"The wolf! the wolf!" The wolf then says-
" The wolf has gone to Devonshire, It won't be back for seven years,; Sheep! sheep! off to the fields!"
The sheep then run out, and it is the object of the wolf to catch any one of them before it returns to the fold. The sheep caught is wolf next game.
762. Proteus Cupid. The leader in this game is seated upon a chair of state, or upon anything which may be substituted for a

## THE CORNER CUPBOARD:

throne, as umpire. The players then present themselves in turn before her, each as the words are repeated endeavouring to embody the character of Proteus Cupid. The hands, arms, head, countenance, and, indeed, the whole figure should express the proper emotion. The game gives an excellent opportunity for the display of whatever powers of mimickry the players may possess. The first player commences with A., and may take as many varieties of expression as he can find under each letter. The second player takes B, and the whole alphabet is gone through. The umpire has the power of approval, or objection to any of the embodiments.

## 763. Example.

A. Proteus comes affected-or affrontedor agile. (At each of the words beginning with $A$., the player assumes an appropriate aspect.)
B. Proteus comes bounceable, bold, begging.
C. Proteus comes cringing, crying, cross.
D. Proteus comes dancing, dawd'ling, down-
cast. cast.
E. Proteus comes eating, eager, enthusiastic.
F. Proteus comes fond, foolish, fast.
G. Proteus comes gaily, greedy, grasping.
H. Proteus comes haughty, hobbling, heed-
less.
I. Proteus comes idling, insane, impressive.
J. Proteus comes jocular, jubilant, jealous.
K. Proteus comes kindly, knavelike, kissing.
L. Proteus comes loonish, loving, laughing.
M. Proteus comes mournfully, majestic, meek.
N. Proteus comes nodding, nervous, noisy.
O. Proteus comes owl-like, orderly, outrageous.
P. Proteus comes prying, playful, poorly.
Q. Proteus comes queer, quizzical, quarrelsome.
R. Proteus comes raging, resentful, rustic.
S. Proteus comes snappish, smiling, sad.

T Proteus comes trickish, turbulent, trembling.
U. Proteus comes upright, unruly, unhappy.
V. Proteus comes vain, violent, various.
W. Proteus comes woebegone, weeping, waspish.
X. (Omitted).
Y. Proteus comes youthful, yawning, yel-
Z. Proteus comes zig-zag, zealous. [low.
764. CRICKET.-This noble game is unsurpassed for its interest, its usefulness, in developing the muscular power of the body, and the favour in which it has always been held in these islands by all classes was not unknown to our Saxon ancestors. Its name is derivable from the old Saxon word cricce, a stick or staff with which the ball was struck. Mr. Strutt, in his "Pastimes of the People," describes two cuts copied from old manuscripts of the twelfth century, which show something of the sport in its primitive form. About a hundred years ago, the laws of cricket, as at present followed, began to be laid down. The length of bats-the weight of balls-the character of the wicket, \&c., were deter. mined; these we now proceed to describe. There are two games of cricket-double wicket and single wicket. The party that obtains most runs in two innings wins.
765. Double Wicket.- The number of players should be twenty-two; eleven on each side. The two parties toss up for first innings, and two players of the win. ning party go in, one at each wicket. The out-party disperse in various directions about the field, to catch or stop the ball when struck by the batsmen. One of the bowlers commences bowling, either four or six balls (as may previously have been determined), his object being to bowl down the wicket; if he succeed in this the batsman retires from the game, and another of his party takes his place. If, however, the batsman strikes the ball, he and his partner commence running to eaeh other's wicket, and back again until the opposite party gets possession of the ball, and one run is scored towards the game every time they change wickets. Should either of the opponents in throwing up the ball strike down one of the wickets while the batsman is absent from it, he is out; or if after the ball is struck one of the fieldsmen catch it before it reaches the ground, the batsman who drove the ball is out. The batsman may leave his ground to strike, and any runs so obtained are scored; but should the wicket keeper succeed in putting down his wicket with the ball while he is away, he is out. When the first bowler has delivered his four or six balls, the umpire at his wicket calls "over," and the fieldsmen reverse their positions by


Fig. 1.
THE BATSMAN.
crossing over to the opposite side of the ground. The same number of balls are then delivered from the other wicket by the batsman whose turn it is, and so on alternately. When all the players of the


Fig. 2.
THE HOME BLOCK.
in-party are out, their opponents change places with them, and bowl to them until their innings are over. When each side has had two innings, the runs are counted, and the party that has obtained most is declared conqueror.
766. Bats, Balls, Stumps.-The bat should not exceed thirty-eight inches in length, nor four and a quarter in breadth in the widest part. A full size bat ought not to weigh more than two pounds and a


Fig. 3.
FORWARD PLAY.
half. In their manufacture willow is the material chiefly used. The handle is wound round with waxed twine, to afford the player a better grasp, and to lessen the concussion. The blade is about twenty inches, commencing at the shoulder with a
width of four inches, and increasing downwards to four inches and a-quarter. It should also be about an inch thicker at the tip than at the shoulder. The face of the bat should be perfectly smooth and slightly conver. The back should be more acutely rounded than the face. In choosing a bat, do not have the handle too thick for the hand to grasp perfectly. The handle should be thickest near the shoulder. When not in use, a bat should not be kept in too dry or in too damp a place, as it is liable to crack when exposed to different temperatures. A bat when put away, should be rubbed with linseed or sweet oil ; by this means it is preserved from splitting.


Fig. 4.
THE DRAW.
767. The Ball should not exceed in weight five ounces and three quarters, nor be under five ounces and a-half; the circumference must not exceed nine inches and a quarter, and it is best formed of four pieces of leather strongly sewn together, and forming two perfect hemispheres. When done with, the ball should be greased to preserve the stitches from decay, and to prevent the leather from fraying.
768. The Stumps should stand twentyseven inches out of the ground. The best are those made of ash or lance wood. They may be bound either with wire or strong twine, and grooved on the top to hold the bails, the length of which should be four
769. Umpires.-Umpires are appointed on either side: one for each party to settle any disputed matters that may occur during the progress of the game. They should be persons who thoroughly know the game, have good temper, and are free from all suspicion of partiality. They stand one at each wicket, the umpire by the striker's wicket, a little behind it at the on side. His duty is to decide whether the batsman is fairly stumped or not. The umpire at the bowler's wicket stands in a direct line behind it: he has to see that the bowler sends the ball fairly, and that the batsman does not protect his wicket unfairly with any portion of his body or dress. He also decides in all


Fig. 5. THE DRIVE.
cases of catches before wicket. The umpires change wickets after each innings.
770. The Scorers.-One scorer for each side is named to mark the runs. They must stand clear of the players, at some distance out in the field. Scores are to be kept distinct. Each striker's runs are marked separately to his name each innings, and when he is out the particulars should be markedas, whether bowled out, caught, or what not; and the name of the person attached by whom he was put out. Overthrows and lost balls are scored to the striker, and the wide balls, no balls and byes one each, to be
placed in a separate line, and cast up with the innings of the strikers when the innings are finished.
771. The Ground.-The ground selected for cricket should be as level as possible, in order that nothing may impede the bowling. The grass should be kept mowed, or cropped close by sheep. The more extensive the cricket-ground is the better.
772. Pitohing the Wickets. - The wickets are placed directly opposite to each other; and for adult players the rule is, that they be twenty-two yards apart. For more juvenile cricketers, a lesser distance may be chosen, according to fancy (and the same remark applies to the weight and size of bats, balls and wickets, the preceding rules being those of the perfect game: our young friends will be able to calculate the necessary allowances for themselves).
773. Bowling Crease and Popping Crease.-The former must be in a line with the wicket, six feet eight inches in length, the wicket being in the centre, and having a return crease at each end as right angles with it. The latter must be four feet from the wicket-parallel with it-of about the same length as the bowling crease.
774. The Batsman.-The chief occupation of the batsman or striker is to defend his wicket. The principal positions he has to assume in that defence, and in propelling the ball, are here described :-Fig. 1. shews him in a position prepared to receive the ball just previous to its delivery. Having once left the bowler's hand, the batsman's judgment must determine for him which of the following are immediately necessary. Fig. 2. is the home block. It is the stopping a well-aimed ball just in front of the wicket. The batsman has calculated that he could not drive the ball to any advantageous distance, and contents himself, perhaps deems himself fortunate in being able, by the home block, to smother it and save his stumps. But the bowler may deliver the ball a little over the dangerous ground; in which case the batsman meets it, as Fig. 3, forward play. What is called the draw is shewn in Fig. 4. It is a difficult and delicate process, and can be best learned by experience, and from watching the best players. Fig. 5. is the drive.
775. USE OF KAIL STALKS IN JERSEY.-After reserving for seed the best plants, the remainder are rooted out in spring, but by no means cease to be useful. They have then attained the height of six feet and above, part are chopped up, dried, and used as fuel ; the taller stalks are carefully preserved. Those of a slender form are used as supporters for scarletrunners, whilst the tall and stout stems are found to be of sufficient solidity to serve as rafters under thatching of out-houses, to which use they are put.
776. INDUSTRIOUS WEEDING BY FLEMISH FARMERS.-It is hardly possible to conceive how much attention is paid by Flemish farmers to the weeding of their land. In their best cultivated districts their exertions are incessant, and frequently from twenty to thirty women may be seen in one field, kneeling for the purpose of greater facility in securing and extracting the weeds. The weeds collected in spring, particularly when boiled, are much relished by milch cows; and in various parts of Flanders, the farmers get their lands weeded by the children of the neighbouring cottagers solely for the privilege of procuring these weeds for their cattle, and by this means converting a nuisance into a benefit.
777. REMEDY FOR CONSUMPTION. -Surprising changes in consumptive subjects have been wrought in a few weeks by using the following simple recipe:-A pint to a quart a day of coffee made with milk instead of water, and taken at pleasure like other coffee.
778. STRAWBERRY JAM.-Bruise very fine thestrawberriesgathered when quite ripe, and add to them a small quantity of red currant juice. Beat and sift sugar equal in weight to the fruit, which strew over them, and place the whole in the preserving pan; set them over a clear slow fire, skim them, and then boil for twenty minutes, and put into glasses.
779. TO PICKLE SALMON.-Boil the fish gently till done, strain the liquor, add bay-leaves, pepper corns, and salt ; give these a boil, and when cold, add the best vinegar ; then put the whole sufficiently over the fish to cover it, and let it remain a month at least.
780. TREATMENT OF THE HAIR.

The hair requires constant attention on the part of its possessor, and although it should be kept scrupulously clean by brushing, \&c., it should never be roughly handled. Both by such treatment, and by improper applications, the roots of the hair may be irretrievably injured. Let those brushes, therefore, which are more immediately applied to the skin of the head be pliable, and rather soft than otherwise, stronger ones being employed for the long hair. From the respectable perfumers there are various excellent lotions to be obtained, which are effectual in removing scurf, and otherwise cleansing the hair, and the use of well-prepared vegetable oils is advantageous in promoting growth and gloss; but the better class of hair-dressers in the present day are so completely au fait at their occupation, that general observations like the above are almost superfluous. They are the arbiters of the destiny of a lady's nair, and we are happy in believing that they are a conscientious class of people; and never was their skill more severely tried than at the present moment, when the fashion of the hair, rolled à la Eugenie, requires an elaboration of treatment more fastidiously nice than at any former period; not forgetting the profuse trimming with lace, velvet, ribbon, and flowers. What we would infer is, that more artistic taste is now required, although probably much less time, than when a lady's hair reminded one of a pyramid of Cheops turned upside down. By the way, the word "top-heavy" may, no doubt, be dated from that semi-barbarous period.
The following observations on national customs are derived in part from an excellent scientific treatise, from which it would appear that every people, however savage, has always had its own peculiar greasy or oily preparation for the hair. The Esquimaux and Greenlander, whose sense of smell is not perhaps so acute as that imputed to those who possess the poetic faculty, patronise train and seal oil. Some of the South American fair ones on the banks of the Amazon, Orinoco, and their tributaries, visited by the veteran Humboldt, use the more delicate turtle oil; but there are those among them also who, we regret to say, do not scruple to avail themselves of
the fat obtained from the alligator, an ani. mal whose proximity is never to be desired, nor is the shark oil, adopted by the New Zealanders less repellent for its rancid properties. Nature is supposed to be a safe guide, but in this instance, the savage or half-civilized people referred to, have egregiously erred, as animal fat, with some very few exceptions, is exceedingly injurious to the hair, and is the promoting cause of scrofulous disease of the scalp. Experience probably, or a more accurate judgment of the effect produced, has, however, led the dwellers in warm latitudes generally to adopt vegetable oils, which are in every respect preferable. In the South of Europe, and throughout the Mediterranean, olive oil is in constant request, and that extracted from the cocoanut is much used in the West Indies. In the Pacific Islands both the last-named oil and castor oil are used, the latter being an animal oil, somewhat less open to objection, when carefully prepared. The oils of the palm, butter-tree, and earth-nut are vogue among the African people. It is narrated that Cleopatra was the first personage of importance who led the fashion in bear's grease, and the stuffed effigy of a black or brown bear in the window of a coiffeur is considered a very sufficient evidence of the slaughter of such an animal, "once a month," for the benefit of the fair community. But although the fat of ducks, moles, and vipers may not have survived the age of William and Mary, certain it is that beef marrow and hog's lard play a very distinguished part in the hair-dresser's laboratory, and greatly economise the destruction of Bruin. After all, and taking Dr. Burgess as a guide, there can be no doubt that animal oils are in the main bad. Fluid vegetable oils should be selected as the best means of obviating a deficiency of oleaginous products in the cells of the hair-tubes. We can easily imagine that a lady has frequently asked herself how it is that her hair so completely loses its curl and becomes straight and flaccid; but the truth is, that it readily imbibes moisture from both the skin and the atmosphere, when the natural secretion of the lubricating fluid in the tubes of the hair is impeded; and by degrees the latter becomes coarse, harsh, and scurfy. Obviously, therefore, the hair must
be supplied naturally or artificially with its necessary nourishment; and pure fluid vegetable oil is the only desirable application for this purpose. It should be well initiated into the roots of the hair, as well as throughout the general texture, but it should not be lavishly employed, as in that case it would become a clog.

We are told by Melville, that the Typee girls devote much of their time to arranging their fair and redundant tresses. After bathing, as they sometimes do four or six times a day, the hair is carefully dried, and if they have been in the sea, it is washed in fresh water, and then anointed with perfumed cocoa-nut oil, fit, he observes, for the toilet of a queen. An American poetess says:-
"The glowing sky of the Indian isles Lovingly over the cocoa-nut smiles, And the Indian maiden lies below,
Wheu its leaves their graceful shadows throw; She weaves a wreath of the rosy shells
That gem the beach where the cocoa dwells; She binds them into her long black hair, And they blush in the braids like rosebuds there. Her soft brown arm and her graceful neck, With those ocean blooms she joys to deck.

O, wherever you see
The cocoa-nut tree,
There will a picture of beauty be!"
Enough of this special oil, which is, no doubt, valuable ; but the oils which hold a pre-eminence in the present day are a combination of the choicest vegetable oleaginous products scientifically prepared, so as to conduce to the preservation and improvement of the hair.
As to hair-dyes, their name is legion, and every coiffeur has his own favourite preparation. Some of these, which are most puffed, are decidedly the worst. Care should be taken to suit the dye to the complexion and age; and, as a pleasant comment on this part of our subject, we give the following anecdote:-It appears that at a large and very fashionable dinner party, presided over by a lady of considerable personal beauty, but who had found it desirable to have recourse to a jet black dye for the hair, that her little daughter, a fair-haired, blue-eyed sylph of some six or seven sum. mers, appeared at the dessert with her golden tresses dyed so as to rival the raven's wing. "What is the meaning of this extraordinary change?" and other similar exclamations escaped from both parents and
guests. But their astonishment and con. sternation were only met, on the part of the child, with a hearty and ringing laugh, as she described minutely the process of blackening her hair with the materials "used by mamma !"-How to Arrange the Hair (Partridge and Oakey).

## 781. AN OLD WOMAN'S STORY.

I WONDER why people never write about beautiful old women. The theme of sylphlike figures, and fair young faces has been exhausted; why does not some one write something ner about beautiful old women? For there are many aged females who possess the charm of beauty to a most remarkable degree, and I have such an one in my mind's eye at this moment. Dear old Betty Mitchell! I see you now sitting in the chimney-corner of your tidy cottage, with the little round oak table before you, spread with your gaily-coloured tea things, and always ready to tell Miss Caroline some story of your younger days. There that dear old woman used to sit throughout the livelong day, a model of patience and saintly resignation I used to think her ; for whether tortured with the rheumatism, or racked with the pains incident to a declining body, I never heard her once complain or murmur. She was tall, and must have once been a very fine figure, but when I knew her she was stout and comfortablelooking. She had beautiful features, and a still lovely complexion, which was perfectly colourless, and her white hair was always arranged smoothly under her irreproachable mob cap. She had been almost blind for some time, but she could both knit and plait straw, and earned a good deal by her occupation, for she was never idle. I often used to go and read to her, and I believe it was the pleasure she most liked to listen to me while I read the Bible. I was young then, but I remember to this day the pious remarks she used to make after these readings, and it was my chief delight to go and read to Betty Mitchell. One afternoon, I had gone there very early, meaning to spend some time with my "own old woman," as I used to call her ; and at last I got very tired. I had read till I was hoarse. I had examined for the hundredth time the wonderful prints hung against the whitewashed wall, and I had exhausted all the topics of
conversation. I sat down wearily on the window-seat, and exclaimed, "Oh, Betty, can't you tell me a story ?" She looked up, and after thinking a moment, replied, "Well, Miss Caroline, I think I can; and it is a story which will do you good to hear, for it is about vanity, and I observe that when you come to pay me a visit, you always go straight to the little lookingglass on the dresser."

I hung my head, for I knew that my own old woman had told the truth, and that I could not say it was not so. Concluding that I was vexed from my silence, Betty continued, "You are not angry with me, Miss, I hope, for you know I am an old woman, and have seen the trouble that comes of vanity, so I speak for your good."
"No, Betty," said I, with burning cheeks, "I know you are very good and kind. But tell me the story." I thought more of the story than the moral at that time, but now I am somewhat older it is the moral I think of most frequently.
"Well, Miss Caroline, you have often heard me say," began Betty, "that in my youth I lived as housemaid in several families. There was Mrs. Flynn, and Miss Rudgcombe, and -"" "Oh, Betty, never mind the names," interrupted $I$, in despair, "the story, the story." "Well, then, the story, Miss Caroline. At first when I went into service, I was very young and flighty, and kept changing and changing; I was never satisfied, and was not grateful for a good place when I got it. Either the work was too hard, or I was not allowed to go out enough, and so I kept going from one family to another. At last I got a very good place, as under-housemaid in a grand house, Beverley Hall it was called, and a beautiful one it was. Mr. Beverley was an old gentleman, and he had two daughters, such sweet young ladies, Miss Caroline; I remember them well now. There was Miss Beverley, she was about twenty, and was at the head of her father's house, and there was Miss Rosa, she was two or three years younger, and her father used to call her his wild-rose. Miss Beverley was very handsome, and she had dark glossy hair, and a pale, brown complexion, and a proud haughty look, that became her well, and Mr. Beverley called her the princess. And yet she was not haughty towards those who were beneath
her in station. If I ever met her in the passages, she had always a kind word to say to me. The poor respected her very much also, but they did not love her as they did Miss Rosa, for she had a kind soft way of speaking, that won all hearts, and I believe there was not a creature in the whole village who would not willingly have given his life-blood for her, if it had been necessary. But though Miss Beverley was kind, yet it was a proud kindness, and she always appeared so grandly dressed, that the common people stood in awe of her. I have heard that few in her own rank of life liked her, she was so haughty, and seemed to stand above them, so they said she gave herself airs. She was very jealous of her sweet blooming sister, because she thought her father preferred the wild-rose to the princess, and because many thought Miss Rosa more beautiful than she was, and every one liked her more. We servants used to say among ourselves that we loved Miss Rosa, but that we feared Miss Beverley, and it was just the difference between their two characters. Miss Beverley was very vain ; she knew she was beautiful, and she was very proud of her beauty. She used to spend hours at her glass, and her mind told us she could seldom arrange her hair to her satisfaction. She never passed a looking-glass without just glancing at herself, and it frightens me when you do so, Miss Caroline, for I think that your vanity may lead you to the same end her's did. Their father was very hospitable, and the house was always full of visitors. Among them came a Mr. Montague, a tall, dark, handsome, stern-looking man of about thirty. Just at that time Miss Rosa had taken me for her own maid. Before that the two sisters had but one maid between them, but Miss Beverley always kept her so much in attendance on her that Miss Rosa could scarcely ever obtain assistance. I was clever at my needle, and Mrs. Payne (Miss Beverley's maid) taught me how to dress hair, and Miss Rosa one day asked me how I should like to be her maid. It was the thing I had often longed for, so I was advanced to the post of lady's maid, and took my meat in the housekeeper's room along with the upper servants. After a short time the butler let drop hints to the housekeeper before us, how Miss Beverley
was laying herself out to make Mr. Montague fall in love with her, and how she thought that he really was, while it was Miss Rosa to whom he paid attention. Miss Beverley grew very pale, but more proudly beautiful than ever, and she moved about the house with the step of a queen. The servants began to dislike her haughty manners, and said she was eaten up with pride and vanity. The men servants said that she was constantly talking to Mr. Montague, singing and playing for him, and trying to keep him beside her, but that while he was with her he always looked uneasy and kept glancing towards where Miss Rosa sat, quietly working, and very seldom speaking. Her sister treated her quite like a child, and seldom consulted her wishes ; for all that she bore it like an angel, and never murmured, though I've often and often seen her cry, and I am sure that was the reason. The two sisters' rooms adjoined each other, and one morning I was in Miss Rosa's arranging something, and Miss Beverley called my young mistress into her room. The door which communicated with the two apartments was open, and I could not help hearing all that was said. I ought to have gone and shut the door, but I did not, and I am ashamed to say was glad of the chance of overhearing all that passed. Miss Beverley was speaking angrily to her sister, and I soon found that Mr. Montague was the subject of their conversation. Miss Beverley was accusing Miss Rosa of trying to take his love from her, and I heard her sister say very gently, "Eleanor" (that was Miss Beverley's name),
"I am sure you are mistaken. Do not be angry or think I have any other motive than love for you. I do not think that Mr. Montague entertains such feelings for you as you seem to fancy. Do be guided by reason, dear sister; he scarcely speaks to you, and he always leaves you whenever there is an opportunity."

I did not see Miss Beverley, but I could be sure that she drew herself up haughtily, and that anger flashed from her dark eyes, from the tone in which she interrupted her sister.
"Rosa," said she, " how dare you speak to me in this manner? Believe me, I am no weak girl as you are; I do not love or hate in vain. I could not bear in silence,
like you, the pain of unrequited love. I tell you, Rosa, that I have never loved any one till I saw Mr. Montague, not even my father or you! My heart has only room for one ; and I love as intensely as I can hate! Should it be as you say, that Pelham Montague does not love me, and that I am de. ceived, then I say, Rosa, that death alone can wipe out the remembrance." All was silent for a moment, and then I heard my dear young mistress weeping.
"Oh, Eleanor!" she said," do not utter such fearful words. Love like yours is not love; it is only passionate vanity and pride. You think of your gorgeous beauty, dearest, and you fancy no one can see it unmoved. Do not turn from me in that way; even if you do not love me, remember I am your sister, and hear me in patience. If you were to have the small-pox, what would become of you then? seamed for life, a repulsive object to all but me and that dear father you say you do not love. Oh, Eleanor, Eleanor, try to overcome this feeling; it is wicked, it is sinful."

There was no reply from Miss Beverley, and soon after my own mistress came into her room, where I still sat. I knew I had been doing wrong, but I would not leave the apartment and pretend I had not heard, when I really had. Miss Rosa was crying bitterly when she came in, and she started on seeing me, and grew very pale.
"You have heard all!" she said.
I burst into tears, and begged her to forgive me.
"I do," she said sorrowfully; "it was very natural:" she came up quite close to me, and said, "I believe you love me, Mitchell."
"Do I not, dear Miss Rosa ?" said I. "I love you dearly; and oh! I wish I could do something for you."
"You can," said she. "Promise me, Mitchell, that you will not repeat a word of what you have heard to-day."

I promised, as you may well believe, Miss Caroline; and my dear young lady laid her head on my shoulder, and wept for a long time, and I could not comfort her, all I could do or say.

Matters went on in this way for a month or more, Miss Beverley growing more and more pale and proud, and Miss Rosa drooping like a lily. Her sister was so unkind to
her, and said such sharp things, that she used often to come up to her own room, and sit and cry, glad to be alone, that she might give vent to her feelings. I used to find her lying on the sofa in her bed-room, with her face buried in the cushions. And Miss Beverley would be in the drawing-room, talking to Mr. Montague, and making herself so agreeable as she could do when she chose. And he, they said, seemed to be in a dream; for he scarcely ever spoke, or made a single remark; but when Miss Rosa came into the room, then he brightened up immediately ; and it was easy to see who it was that occupied his thoughts. One day (Miss Rosa told me of it a long time afterwards) Miss Beverley came into her sister's room, in high spirits, and even kissed her.
" Well, Rosa," said she, "how will you construe this? Mr. Montague has been scolding me for behaving too severely towards you. Is not that a proof of attachment? for no man in his senses would ever think of presuming so far as to lecture a young lady were he not in love with her. It is, indeed, a proof of most disinterested, fearless attachment."

A deep flush mounted to Miss Rosa's pale cheek, and her sister, observing it, exclaimed angrily-
"I believe you think Mr. Montague is in love with you, foolish child that you are !" And she swept out of the room.

Miss Rosa and I used often to get up early in the morning, and go out for a walk before breakfast. She generally read some religious book to me while we walked, and she always treated me with such kindness and condescension. Ah! there are few like her! She was too good for this sinful world. One morning we had scarcely got as far as the avenue when Mr. Montague came to join us. He looked very much agitated, and gave me a look, as much as to say that I was not wanted. I took the hint, and lingered behind till they were out of sight. I would not return to the house, for I knew that the servants would ask me where Miss Rosa was, and I did not wish to be questioned, for I did not know exactly what to say. So I stood gathering flowers on the bank, and hoping and praying that whatever Mr. Montague might say would have the effect of cheering my dear Miss Rosa. In about half-an-hour Mr. Montague
came back alone, as pale as ashes. On seeing me, he exclaimed-"Go to your mistress, instantly ; she has fainted." He pointed out the way I was to go, and then disappeared among the bushes. I flew along the path with a beating heart and trembling limbs, and at some distance, beneath a tree, I found Miss Rosa. She was just coming to herself as I came up, and I lifted her tenderly in my arms. She opened her eyes with a deep sigh, and looked anxiously about her."
"Is he gone?" asked she, trying to walk; then seeing that no one was near but myself, said, "I am so glad." I offered her my arm, for she could scarcely stand, and as we emerged from the plantation, I looked suddenly round, and saw Mr. Montague standing behind a tree. The expression of his countenance I shall never forget. Deep grief and despair were written on every feature, and my heart bled for the poor gentleman and for Miss Rosa; I was sure she loved him, and that he loved her, and thought that he must have spoken his mind to her that morning. I felt certain that she had refused him, from love to her cruel, hard-hearted sister, and my suspicions were true. Miss Rosa told me afterwards that those terrible words of her sister's, "death alone can wipe out the remembrance if I am deceived," haunted her night and day, and that she had resolved to refuse the man she really loved from affection for Miss Beverley. "She seems so wild," she said to me that very morning, as she lay on the sofa, and I bathed her forehead. "I sometimes think she is scarcely in her right senses. Mitchell, there is no one I can trust so well as you; watch her well, and after she hears that Mr. Montague is gone, do not let her go out of the house without telling me."

This was in the morning before breakfast. Miss Rosa did not go down stairs, she was too faint and weak. Mr. Montague was not of the party at the breakfast table. They sent to his room-he was not thereand they despatched the men-servants to look for him in the grounds. Miss Beverley, the butler said, seemed to grow paler and prouder every moment; there was no colour in her lips, but there was a brightness in her eye that was absolutely fearful to look at. Miss Rosa was so nervous that
she begged me not to leave he: for an instant, so I stayed with her, and when I heard the other servants in the passages, I just went out to hear how things were going on. At last they told me that a note from Mr. Motague had been brought to Mr. Beverley, apologising for his rudeness in leaving the house so suddenly, but pleading urgent business of the utmost importance. Mr. Beverley had remarked, handing it to his daughter, who sat as if glued to her chair, "The letter looks as if he had written it during an earthquake-what a shaky hand !" Miss Beverley pretended to take no notice of the letter, but the butler observed that she put it in her pocket when no one else was looking.

Miss Rosa was so exhausted that she fell asleep, and I sat by her with my work, thinking of all that had happened, and how it would end, when Miss Beverley glided into the room. I never saw any one look so awfully before, Miss Caroline, and I never have since. Her complexion was like that of a dead person, ashy grey-and her lips were quite blue. Her eyes, I could not look at them, they were like coals of fire. She walked up steadily to the sofa where Miss Rosa was lying asleep. I sprang from my chair, and placed myself before my young mistress.
"If you please, ma'am," said I, as respectfully as I could, "Miss Rosa is asleep."

She looked at me for a moment as if undecided, then stretched out her hand, and laid it on my wrist with such a grasp, that I bore the mark for many days afterwards. She pushed me aside without speaking, then bent over her sister, while I leant against a chair so frightened that I could not move, for I thought she was out of her mind. She stooped down and murmured between her closed teeth, "Your desires are satisfied, and you shall see the result," then left the room. A few minutes after Miss Rosa woke, trembling all over. I bent over her, and spoke to her soothingly, and she soon recovered sufficiently to be able to tell me what had frightened her. "Oh! Mitchell" she șaid, "I have just dreamt such a fearful dream. I thought my sister was standing over me, and said, "Your desires are satisfied, he has left me; you shall see the result." I would not tell her that it was a reality and not a dream, for I

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thought it would alarm her still more, and she was so nervous and ill that I was afraid it might bring on a brain fever. I did not leave her all the day, as much from my own wish as from her's, for I was really beginning to think that Miss Beverley was not in ber right mind, and I dreaded lest she should come up and say anything unkind and cruel to her poor sister. All that day she was more than usually gay, and seemed even to forget her haughtiness; people said she had soon consoled herself fcr Mr. Montague's loss, and some even hinted that he had proposed to her and been refused; no one guessed the real truth. I thought once that I would go and speak to Mr. Beverley, and tell him bold all I knew, and how that I wished a watch might be set over Miss Beverley till she was more composed ; but then, again, I knew that it would be very intrusive of me if it were to prove that my suspicions were not correct, and so I dared not say anything, but I determined to sleep in the same room with Miss Rosa that night. There was to be a grand party and ball in the evening, and Miss Reverley went up early to dress. She came into her sister's room before she went down stairs, and I had never seen her look more beautiful than she did then. Her cheeks were flushed, which improved her appearance very much, and she was magnificently dressed. Miss Rosa looked timidly up as she entered, and would have risen from her sofa, only her sister went kindly towards her, and kissing her, said, "Poor child, you look quite ill, lie still and do not move for me. Mitchell," turning to me, "will you go down stairs and fetch me a glass of lemonade? I am so thirsty this evening; I shall wait here for it." I obeyed; I would have given worlds not to have left the room, for there was something in Miss Beverley's eye that frightened me still, so I flew down stairs like lightning, and the first person I met was the housekeeper. " Mitchell," said she, " what is the matter, you look as if you had seen a ghost? Is Miss Rosa ill ?"
"No," I gasped, for I was quite out of breath; "Miss Beverley wants a glass of lemonade."
"Oh, is that all; she desired that this might be kept for her in particular," and she gave me a glass on a silver waiter, and

I again returned as fast as possible to my young lady's room ; when I got there Miss Beverley was gone.
"My sister said you were so long in fetching it that she could not wait," said Miss Rosa; " you may give it to me, I feel as if something inside me was burning." I was just about to give it to her when I remembered that Miss Beverley had been down in the housekeeper's room part of the afternoon, looking that everything was right for the party, and that this had astonished the servants very much; for, in a large establishment like that, it was both unusual and unnecessary for the lady of the house to attend to anything herself, and Miss Beverley had never done so before. Then I recollected that the housekeeper had said that the glass of lemonade in particular, had been put by for her, at her own request. Was not all lemonade the same? and what reason could she have for acting in so peculiar a manner? This all passed through my mind in a moment, and when Miss Rosa asked a second time for the lemonade, I made a step forward, and pretending to stumble, let fall the glass, and the lemonade was all spilt on the floor.
"Really, Mitchell, you are very awkward," said my mistress, gently. "The acid will take all the colour out of the carpet."

I feigned sorrow for the accident, though I was very glad of the result. What was it to me if a hundred carpets were destroyed so that it saved my dear young lady's life? Then she told me to come and sit by her, saying that she felt quite happy, for that Miss Beverley had told her that she did not care now for Mr. Montague, and would think no more about him. In spite of this I felt uneasy, and determined to sit up that night with Miss Rosa. I went down stairs and was told how Miss Beverley was dancing, and how happy and merry she seemed, quite like another creature, and how all the guests were delighted with her pleasing manners. I returned to my mistress's room, and assisted her to bed, for she was ill and worn out. I then went to the door which communicated with her sister's room, and tried to shut it, for it had been open all the evening.
"My sister tried to shut it while you were away, Mitchell," said Miss Rosa, "but she could not manage it."

I knew that the door shut perfectly before Miss Beverley came into the room, and now the lock was tampered. I could not shut it. I took the candle to see what could be the reason, and looking down on the floor, accidentally, I saw the broken blade of a penknife. With my mind full of strange misgivings, I stood still in Miss Beverley's room, and while there, Mrs. Payne, her maid, entered. She advanced to me, with her finger on her lip, walked to the dressing table, and took up a long thick lock of dark hair.
" What do you think of that?" said she, holding it for me to look at.
" Why, it is Miss Beverley's," whispered I, fearing to disturb Miss Rosa.
"Just so," replied Mrs. Payne: "I could not manage her hair as she liked, and, without speaking a word, she put up her hand, took hold of this ringlet, which would not curl properly, and pulled it out of her head, as if it had been a single hair. I said, 'Law, Miss!' and she turned round, glared in my face with those flashing eyes of hers, and said, 'Be silent!' and she never spoke another word the whole time I was dressing her. I declare I was so frightened I didn't know what to think."
"I was frightened, too, as you may suppose, Miss Caroline," continued Betty Mitchell, glancing to where I sat, with eyes dilated to their widest stretch, my hands clasped round my knees, and my imagination already anticipating what was to come.

She continued-" Mrs. Payne kept looking about the table, and suddenly exclaimed, ' Why, who in the world has done thisbroken Miss Beverley's pearl-handled penknife, that she valued so much? It must have been the housemaid. She'll catch it! "’

I knew well who had broken the penknife, but I did not say a word. I ought to have gone straight to Mr. Beverley and told him all, but I feared to do so.

I determined, however, not to let sleep close my eyes that night. I went down and asked for a strong cup of coffee, saying I had a headache, which, indeed, was true.

I knew that the coffee would keep me awake while my mistress slept soundly, for she was fast asleep already, worn out with
anxiety and sorrow. One of the footmen was my cousin ; I went to him, and offered him part of my next quarter's wages (for I knew he would do nothing without money) if he would promise to sit up all night in a small unoccupied room at the end of the corridor. I would not tell him my reason, but he was very willing to sit up one night for a sovereign, and readily promised to do so. I told him to wait till everybody was in bed, and then to steal, without a candle, to the room at the end of the passage, where I would meet him with a light, for he was afraid of sitting up alone in the dark. Then I returned to Miss Rosa's room. Mrs. Payne was sitting there-watching her while she slept-for she had offered to take my place, while I went down for a cup of coffee, as I had complained to her of a headache. When I entered she rose, and went into Miss Beverley's room. A moment after I heard a suppressed scream from her, and then she came to the door, as white as a sheet, and beckoning for me to go to her. I went.
"Look here," said she, opening the drawer of the washstand; "what can my mistress be going to do ?"'
I looked, and saw a paper, wrapped up as if it contained a powder, and on it was written-" Poison-ARSENIC."
"Miss Caroline, I thought I should have fainted, I was so frightened !"

I was certain, now, that the young lady was either mad, or meditating suicide. However, I said not a word.
"Miss Beverley," continued Mrs. Payne, "has used this as a cosmetic; at least, has put it in a mixture. Last week, when she had done, she said to me, laughing, 'Payne, you are much older than I am, and more fit to be trusted with this. I am afraid of keeping it myself-so take it, and mind you lock it up safe, so that no one can get at it.' I did so, and Miss Beverley never spoke of it again till this morning, when she said, suddenly, soon after breakfast, 'Payne, I hope you keep that arsenic quite safe; where do you put it?' I said I kept it in a locked box on my chest of drawers, and soon after I missed my keys. I looked about for them all the morning, and then I said to her, 'Do you know, ma'am, I am quite frightened about that arsenic, for I have lost my keys!'
"'Oh!' said she, 'you need not be alarmed; you left your keys on my dressingtable, and I put them in my drawer. Here they are,' and she gave them to me. I never thought more about the matter, except that it was very strange I should have left my keys on Miss Beverley's dressingtable; but now I find the arsenic here, and I cannot account for it: unless she took the keys out of my pocket by stealth, and went to my room, to unlock the box where the

Mrs. Payne looked very anxious and very much frightened, and so I told her all my suspicions, how that Miss Beverley was insane from mortified vanity and pride, and how that I thought she intended to have poisoned her innocent sister with the lemonade in which arsenic had been put. Mrs. Payne was for alarming the house and having her secured, but I said it would be the worst thing she could do, for that I had heard a great deal about the cunning of mad people, and that an alarm would only put her on her guard against any display of insanity. She promised to sit up all night in her own room, for she was too timid to watch with me, and we separated for the night, I throwing the arsenic into the fire, and substituting a harmless medicine powder, in the paper. The ball was coming to an end; people were driving away, but Miss Rosa slept through it all. I lit the nightlight, took off my shoes, and established myself behind the thick damask curtains, leaving the least bit imaginable open at one side, so that I might see what passed without fear of being seen.

I took care first to hide the broken glass, in which the lemonade had been, for I thought that the doctors might be able to discover if there was poison in the bottom of the glass which was not quite empty. Mrs. Payne had promised to take my cousin, the footman, his light, so I had nothing to do, but sit on the chair in the recess of the window and wait. Presently Miss Beverley came up to bed. Mrs. Payne waited to undress her, but the young lady sent her away almost immediately. The door being open, owing to the tampered lock, I could see into the room from my corner. Miss Beverley sat down at the writing-table and wrote for some minutes,
folded it into a note, and laid it on the dressing table. Then she opened the drawer where the supposed arsenic was, and a fearful smile played over her features. She mixed the powder with water in a glass, then set it down on the washing stand, muttering all the while to herself. I watched trembling with fear. Then she walked quietly into Miss Rosa's room, and my heart beat soloud that I thought she would have heard it. My dear young mistress lay in a sweet child-like slumber, and as her sister bent over her, I thought I saw a look of irresolution pass over her face; it was but for a moment, the hard insane expression triumphed immediately, and she returned to her own room. I saw her take from its case a small, jewelled dagger, which one of her cousins had brought her from Italy, as a curiosity, for I dare say you know Miss Caroline, that the women there all wear daggers. I had seen quite enough. I left my hiding place tremblingly, and flew to the door which opened on the passage, and which I had purposely left ajar. James was standing at the door of the room, in which he had been sitting without his shoes, and he flew forward in answer to my beckoning. We reached Miss Rosa's apartment, and peeped in. Miss Beverley glided in from her own room, looking cautiously about with the dagger in her hand. She advanced to the bed; in another moment Miss Rosa would have been a corpse, but I flew forward and dashed the dagger out of her grasp, while James secured her hands, and dragged her out into the passage, hollowing loudly for aid. I bolted the door instantly to prevent her returning, as also that of her own, and then returned to my mistress. The noise was fearful in the passage, and it awoke Miss Rosa; how she slept through that fearful scene in the bed-room I cannot imagine. Seeing me beside her, she sprang up and caught my arm. "Oh, Mitchell, what is the matter ?" said she.

I said that the house had been attacked by robbers, but that they were all gone now. It was an untruth, but surely it was excusable. Miss Beverley's screams became awful, and I could hear the voices of Mr . Beverley, the butler, James, and the two other footmen, so I knew that she was secured.
"But that is my sister!" exclaimed Miss Rosa, springing out of bed; "is she hurt ?"" "Oh, no, miss!" said I; " perhaps she is in hysterics" (remember, I am not advocating falsehood, Miss Caroline, if it were to come over again, I would not tell those untruths). "Don't be frightened, Miss Rosa, dear, if I go and see after Miss Beverley, but promise me you will not stir from your bed." She promised, and I carefully unbolted the door; near it was standing Mr. Beverley, with the tears running down his cheeks. He thanked me with the utmost condescension for what I had done, and I then asked where Miss Beverley was, for the screams grew fainter and fainter. "They are taking her to the farthest end of the house," replied the poor father; "three men can hardly hold her. But, my Rosa, where is she? how did it all happen ?"

I told him everything in a few words, about Mr. Montague and all. He sighed deeply and shook his head, saying,-
"Vanity began it, poor girl. Oh, my child, my child!"

He burst into tears. Miss Caroline, it is a dreadful thing to see a strong man weep. I begged him to compose himself, and go to re-assure Miss Rosa, and to carry out the deception I had begun, for that night at least. He went into her room while I flew along the corridor, and meeting James, I asked what they had done with Miss Beverley. "They have taken her to the blue room," he replied, "and the doctor has been sent for. She is raving in madness, and talks about her beauty slighted and despised by Mr. Montague. It is very dreadful," and he hastened on. I turned back; Mr. Beverley was standing at the door of Miss Rosa's room. He told me she was quite satisfied with what he had said, and I then left him, and went to her. She was composing herself to sleep again, with a calmness that I could not understand; I lay down on the sofa, for I could not leave her that night, and tried to sleep, but it was impossible. I thought of all that had happened, and how vanity had begun it, and I thought of the young lady's poor father's sorrowful exclamation, "Vanity began it. Oh! my child, my child." By her vanity alone she had ruined the future peace and happiness of her sweet young
sister; and for herself, I feared she would not even find rest or happiness in death. Miss Rosa being fast asleep, I remembered the note that I had seen her sister write, and went into the next room. It was directed to Miss Rosa, and as Mr. Beverley had charged me to destroy anything of the kind which might be found about the room, without bringing it to him (for the poor gentleman could not bear to see the evidences of his daughter's insanity), I burned it to ashes in the flame of the candle, without even reading it, and then I returned to Miss Rosa's room.
"And how did she bear the news in the morning ?" interrupted I.
"Oh,", said Betty Mitchell, " she was inconsolable. She thought, poor dear, that it was partly her own fault, though she was told over and over again that no blame could possibly be attached to her."

Miss Beverley did not recover her reason till her death, seven months afterwards. She was kept in her own apartments at the extreme end of the house, and had two women as keepers always with her. Miss Rosa grew more and more drooping every day; her constitution was breaking up under all her sorrows. I know that she could not overcome her love for Mr. Montague, but of course no one ever mentioned his name, as he was the unconscious cause of Miss Beverley's madness. The family lived as quietly as possible after this had happened, saw no society, and were never seen outside their own gates except at church. Miss Beverley grew very ill, and the doctor said there was no hope, for that she would die. This was about seven months after her beconing mad. A few hours before her death she recovered her reason, and begged to see Miss Rosa and her father. They came, and kissed her affectionately, and she held both their hands, as if she could never see enough of them. Then she asked to be alone with them. I and the nurses went out of the room, eaving them together. Then Miss Beverley confessed how vain she had been of her beauty, and her pique at discovering that Mr. Montague was insensible to it, and how she had mistaken praise for love. How her vanity had led her on from bad to worse-how she was sure that Mr. Montague had spoken to Miss Rosa the
morning he had left so suddenly, and asked her to marry him, and she had refused, from love for her sister. Then she said she had felt a burning hatred for Miss Rosa, and she knew now that it had been madness. She sent Miss Rosa away, after hearing she forgave her, and then she implored her father, as he valued her future peace, to telegraph for Mr. Montague. He refused at first, thinking it would excite her and hasten her end, but she entreated so earnestly, saying that she had a deed of reparation to make before she died, that he consented. It was then four in the morning. Mr. Montague could not possibly come before noon, but Miss Beverley insisted upon being carried out of bed, dressed, and laid upon the sofa in her sitting-room. She called Miss Rosa to her, and asked her to read the Bible, and after she had done so some time, Miss Beverley clasped her thin, white hands together, and said, -
"I know that my Redeemer liveth, and that his blood alone can atone for my fearful sin. Oh, the mercy of a pardoning

She scarcely spoke again all the morning, and appeared to be sinking so rapidly that we feared she would be no more long before Mr. Montague's arrival. She lay on the sofa with the sweet, happy expression of an infant, and she was so thankful and gentle when we did anything for her. Her eyes were frequently lifted to heaven, as if she were praying, and I believe she was. Miss Rosa sat at her feet, quite pale, and with dark circles round her eyes, but she was determined not to cry, for the sight of tears grieved her sister, and she bore up nobly, poor thing. Then Mr. Montague arrived in great consternation, for he thought it was Miss Rosa who was dying, and as it was he looked very sad and mournful. When Miss Beverley heard him coming up stairs with her father, she grew quite animated all at once, and caught hold of her sister's wrist, to prevent her leaving the room. Miss Rosa grew very pale, and dropped down on her footstool, as if she could not stand, and a moment after Mr. Montague entered, followed by her father. I went out of the room instantly, leaving Mr. Bevereley with his two daughters and Mr. Montague. Half an hour afterwards, Mr. Montague
came out of the room with Miss Rosa; his arm was round her waist, and he was speaking words of comfort to her. Mr. Bevereley followed them, the tears running down his cheeks. His eldest daughter was dead; she had just lived to tell Mr. Montague all, and to join his and Miss Rosa's hands, and then she passed away gently and calmly, as if she had fallen asleep. We trusted that, after all her sins and sorrows, repented of at the eleventh hour, she had at last found peace and rest, and fallen asleep in Jesus." Betty Mitchell paused and wiped away her tears. As for me, I was sobbing with my face hidden in my hands. I was beginning to understand. She continued-"Mr. Montague and Miss Rosa were married three months afterwards, according to Miss Bevereley's last request. I continued to be lady's maid to Miss Rosa; for, though she was now Mrs. Montague, I never could call her so, in the same way that I call you Miss Caroline, though you are the only one, and an orphan."
"Oh, Betty!" I exclaimed, amid my tears, "she was my mother!"
The old woman laid her hand upon my head, and stroked down my curls, while she vainly endeavoured to articulate-
"She was, indeed."
"And she died!"
"In giving birth to you, and your father followed her very soon. Oh, Miss Caroline, never forget this story; it has been told you by her who loved your mother as she never loved any one else. You are more like your aunt than your mother; you have the same haughty look at times, and you are very vain; you know you are! Miss Caroline, dear, pray against it ; think, when you feel proud of your beauty, think of your aunt, and her fearful end. I tremble when I see you give your ringlets the same toss she did, and look so proud and vain. You are left much to yourself; your guardian does not notice these things, and your companion is only too happy to flatter you. Trust me, darling Miss Caroline, that beauty is more often a snare than a benefit, It is a gift of the Lord, and may be taken away from you at any time. You never knew your mother. Oh! if you had, you would have tried to resemble her. Think of her and of her poor sister, and do not forget old Betty Mitchell's story !" J. B. T.
782. TO PICKLE FRENCH BEANS. -Pour over them a boiling hot brine, cover them close; the next day drain and dry them ; pour over them a boiling hot pickle of white vinegar, Jamaica pepper and black pepper, and a little mace and ginger : repeat this for two or three days, or till they look green.
783. TO PICKLE LARGE CUCUM-BERS.-Pour over them salt and water, boiling hot; the next day dry them ; cut a piece out of the side, scrape out the seed very clean ; fill them with scraped horseradish, and mustard seed; put in the piece, and tie it in close; then pour over them boiling hot vinegar: in two or three days boil up the vinegar, with pepper, cloves, and ginger ; throw in the cucumbers, boil them up quick for a few minutes; put them into a jar ; cover them close; if they are not green enough, boil the vinegar again.
784. TO PICKLE CAULIFLOWERS. -Pull it into bunches, throw it for one minute into spring water and salt, boiling, then into cold spring water; dry it ; cover it with double-distilled vinegar; in a week put fresh vinegar, with a little mace and nutmeg: keep it close covered.
785. TO PICKLE SPANISH ONIONS. -Peel the onions, and cut a small round piece out of the bottom, and scoop out a little of the insides; put them in salt and water three days, changing them twice a day ; then drain them and stuff them; first put in flour of mustard seed, then some ginger, cut small, a little mace, and some eschalot, cut small ; then some more mustard, and fill them up with some scraped horseradish; then put on the bottom piece, tie it on close; make a strong pickle of white vinegar, mace, ginger, nutmeg, sliced horse-radish, and some salt; put in the onions, and let them boil up two or three times. Care must be taken they are not boiled too much, for they will then lose their firmness, and will not keep; put them with the pickle into a jar; the next morning boil up the pickle again, and pour over them.
786. TO PICKLE GRAPES.-Let the grapes be at their full growth, but not ripe; cut them in small bunches; put them into a stone jar, with vine leaves between every layer of grapes, till the jar is full: then take as much spring water as
will be enough to cover the grapes and leaves; as it heats, put in as much salt as will make it a strong-enough brine to bear an egg, let it be half bay salt and half common salt; when it boils, skim it; run it through a flannel bag, and let it stand to settle; by the time it is cold it will be quite settled; strain it again through the bag, and then pour it into the jar to the grapes, which must be well covered ; fill the jar with vine leaves, then tie it over with a double cloth, and set a plate upon it ; let it stand two days, then take off the cloth, pour away the brine, and take out the leaves and the fruit, and lay them between two cloths to dry ; then take two quarts of vinegar, one quart of spring water, and one pound of coarse sugar ; let it boil a little while; skim it very clean as it boils ; let it stand till it is quite cold; wipe the jar very clean and dry, put some fresh vine leaves at the bottom, between every bunch of grapes, and on the top, then pour and strain the pickle on the grapes; tie on a thin piece of board in a bit of flannel, lay it on the top of the grapes to keep them
under the pickle; tie them down with a under the pickle; tie them down with a bladder, and then leather : always keep them under the pickle.
787. TO PICKLE BEET-ROOT.-Boil it till tender, peel it, and if agreeable, cut it into shapes; pour over it a hot pickle of white vinegar, a little ginger, pepper, and horseradish sliced.
788. TO PICKLE RED CABBAGE.Take two red cabbages, half a peck of French beans, and two cauliflowers; wash them well, and give them one boil; drain them on a sieve, and lay them out by every single leaf on a table or dresser; put them in the sun or in a slow oven to dry, and let them be as dry as it is possible.
789. PICCALILLO, OR INDIAN PICKLE.-Take white cabbage quartered, cauliflowers, cucumbers, melons, apples, French beans, plums ; all, or any of these ; lay them on a hair sieve, strew over a large handful of salt; set them in the sun for three or four days, or till very dry; put them into a stone jar with the following pickle:-Put a pound of ginger into salt and water, the next day scrape and slice it, salt it and dry it in the sun, put into a gallon of vinegar, with two ounces of pep-
per, half-an-ounce of tumeric, a quarter of a pound of mustard-seed bruised; stop the pickle close, then prepare the cabbage, \&e. If the fruit is put in, it must be green. The jar need never be emptied, but put in the things as they come into season, adding fresh vinegar.
790. TO PICKLE ASPARAGUS. Scrape them, and cut off the prime parts at the ends, wipe them, and lay them carefully in a gallipot; pour vinegar over them, let them lie in this ten days or a fortnight; boil some fresh vinegar, pour it on them hot; repeat this till they are of a good colour, covering them close; add mace and a little nutmeg. They do very well in a made dish, when asparagus is not to be had, but when they are used, lay them a little while in warm water.
791. WHAT ARE CAPERS, AND HOW TO PICKLE THEM.-Capers are the flower-buds of a small shrub, preserved in pickle; the tree which bears them is called the caper shrub or bush; it is common in the western parts of Europe; we have them in some gardens, but the principal place for pickled caper is at Toulon; we have some from Lyons, but they are flatter and less firm; the finest flavoured are from Toulon. They gather the buds from the blossoms before they open, then spread them upon the floor in a room where no sun enters, then let them lie till they begin to wither; they then throw them into a tub of sharp vinegar, and after three days they add a quantity of bay salt; when this is dissolved, they are fit for packing for sale, and are sent to all parts of Europe.
792. TO PICKLE CAPSICUM PODS. -Gather the pods, with the stalks on, before they turn red; cut a slit down the side with a penknife, and take out all the seeds, but as little of the meat as possible; lay them in a strong brine for three days, changing every day; then take them out, lay them on a cloth, and lay another over them; put into it some mace and nutmeg beat small; put the pods into a glass or jar, and when the liquor is cold, pour it over, then tie a bladder and leather over them.
793. A RABBIT PIE.-Take a couple of young rabbits, and cut them into quarters; take a quarter of a pound of bacon, and bruise it to pieces in a marble mortar, with the livers, some pepper, salt, a little
mace, and some parsley cut small, some chives, and a few leaves of sweet basil; when these are all beaten fine, make the paste, and cover the bottom of the pie with the seasoning; then put in the rabbits; pound some bacon in a mortar, mix with it some fresh butter, and cover the rabbits with it, and over that lay some thin slices of bacon; put on the lid, and send it to the oven; it takes two hours baking; if there is not gravy enough in the pie, pour in some rich mutton or veal gravy boiling hot.
794. VEAL SUET PUDDING.-Take the crumb of a threepenny loaf cut into slices, two quarts of milk, boiled and poured on the bread, one pound of veal suet, melted down and poured in the milk; add to these one pound of currants, and sugar to the taste, half a nutmeg, six eggs well mixed together; if baked, butter the dish well. This does for baking or boiling.
795. BATTER PUDDING.-A pint of milk, four eggs, four spoonsful of flour, half a grated nutmeg, and a little salt; tie the cloth very close, boil it three quarters of an hour-melted butter.
796. TO MAKE AN OATMEAL PUD. DING. - Take a pint of whole oatmeal, steep it in a quart, of boiled milk over night ; in the morning take half a pound of beef suet shred fine, and mix with the oatmeal and milk some grated nutmeg and a little salt, with the yokes and whites of three eggs, a quarter of a pound of currants, a quarter of a pound of raisins, and as much sugar as will sweeten it; stir well together, tie it very close, and boil it two hours. Saucemelted butter.
797. A FINE BOILED RICE PUD. DING. - Take a quarter of a pound of flour of rice, put it over the fire in a pint of milk, and keep it constantly stirring, that it may not stick or burn to the saucepan ; when it is of a proper thickness take it off, put it in an earthen pan, and put to it half a pound of butter while it is hot enough to melt it, but not to oil; put to it half a pint of cream or milk, the yokes of eight eggs, the whites of two, with sugar to sweeten it, the peel of a lemon grated (grate it off with the lumps of sugar); then put it into small cups and boil them; pour over them melted butter, with a little sherry and sugar.
798. A COMMON CURRANT PUD.

DING.-A pound of currants, a pound of suet, five eggs, four spoonsful of flour, half a nutmeg, a tea-spoonful of ginger, a little powder sugar, a little salt; boil three hours
799. AN EXCELLENT PLUM PUD-DING.-One pound of suet, the same of currants, the same of raisins stoned, the yolks of eight eggs, the whites of four, the crumb of a penny loaf grated, one pound of flour, half a nutmeg, a teaspoonful of grated ginger, a little salt, a small glass of brandy ; beat the eggs first, mix them with some milk, by degrees add the flour and other ingredients, and what more milk may be necessary; it must be very thick and well stirred; boil it five hours.
800. APPLE PUDDING.-Make a puff paste, roll it near an inch thick ; pare and core the apples, fill the crust; grate a little lemon peel (and a little lemon juice in winter, it quickens the apple), put in some sugar, close the crust, tie it in a cloth; a small pudding will take two or three hours boiling, a large one three or four.
801. APPLE DUMPLING.-Pare the apples, and core them whole; fill them with marmalade or sugar, make a hole in a piece of puff paste, lay in an apple, put another piece of paste at the top, close it round the apple; put them into cloths, boil them three quarters of an hour, or bake them in a slow oven.
802. APPLE FRITTER.-Pare some small apples, core and slice them; make a batter with three egge, a little grated ginger, near a pint of milk, a glass of brandy, a little salt, and flour enough to make it thick; put in the apples, fry them in lard.
803. COMMON PANCAKE. - Three eggs, a pound of flour, and a pint of milk; put the milk to the flour by degrees; a little salt, and grated ginger; fry them in. lard, grate sugar over them.
804. NORTHAMPTONSHTRE PAN-CAKES.-The yolks of twelve eggs, four whites, beat them well ; add one quart of milk, six spoonsful of flour, two of brandy, one nutmeg, half a pound of melted butter; a little salt; for the first pancake rub the pan with a piece of cold butter; fry them without anything else in the pan; they must be very thin, clap hot one upon another for about a dozen, and cut through when eaten.
805. THINGS IN SEASON IN august.-Meat.-Lamb, Beef, Mutton, Veal, Buck Venisor.

Poultry.-Turkey Poults, Geese, Pullets, Fowls, Duck, Wild Duck, Chickens, Leverets, Rabbits, Pigeons, Plovers, Pheasants, Wheat Ear.

Fish. - Cod, Haddock, Mackerel, Herring, Skate, Plaice, Flounders, Thornback, Mullet, Pike, Carp, Eels, Oysters, Lobsters, Craw Fish, Prawns.

Vegetables.-Pease, Beans, Kidney Beans, Cabbage, Cauliflowers, Cucumbers, Mushrooms, Sprouts, Carrots, Turnips, Potatoes, Radishes, Onions, Eschalot, Artichokes, Celery, Endive, Sorrel, Spinach, Parsley, all sorts of Salad, all sorts of Herbs.
Fruit.-Pears, Apples, Peaches, Nectarines, Plumbs, Grapes, Figs, Filberts, Mulberries, Gooseberries, Currants, Melons.

## 806. THE MONKS OF OLD.

I envy them, those monks of old-
Their books they read, their beads they told;
To human softness, dead or cold,
And all life's vanity.
They dwelt like shadows on the earth,
Free from the penalties of birth,
Nor let one feeling venture forth,
But Charity.
I envy them ! their cloistered hearts
Knew not the bitter pang that parts
Beings, that all affection's arts
Had link'd in unity.
The tomb to them was not a place To drown the best lov'd of their race,
And blot out each sweet memory's trace,
In dull obscurity.
To them it was the calmest bed,
That rests the aching human head,
They worked with envy on the dead, And not with agony.
No bonds they felt, no ties they broke, No music of the heart they woke,
When one brief moment it had spoke,
To lose it suddenly.
Peaceful they lived, and peaceful died:
And those that did their fate
And those that did their fate abide,
Saw brothers wither by their side,
In all tranquillity.
They lov'd not, dream'd not, for their sphere-
Held not joy's visions, but the tear
Of broken hope, of anxious fear-
Was not their misery.

[^6]807. A STRING OF PROVERBS.

Zeal without knowledge is fire without light. If youth knew what age would crave, it would
both get and save. He that is angry wit
pleased without amends.
He that wears black, must hang a brush at his back.

It chanceth in an hour that cumes not in seven years.
Those that eat cherries with great persons, shall have their eyes spirted out with the stones.
Essex stiles, Kentish miles, and Norfolk wiles, many men beguiles.
When the fox preaches, beware of your geese.
In the forehead and the eye, the lecture of the mind doth lie.
God reaches us good things with our own hands.
When we least think, there goeth the hair away.

> Hasty climbers have sudden falls.

A bad custom is like a good cake, better broken
than kept. He that would hang his dog gives out first
hat he is mad. that he is mad.
Fools lave water, and wise men catch the fish.
He that has but one hog makes him fat, and he that has but one son makes him a fool.
Mischiefs come by the pound, and go away by
the ounce.
the ounce.
Better keep under an old hedge, than creep under a new furze bush.
Patch by patch is good husbandry, but patch upon patch is plain beggary.
Name not a rope in his house that hanged
himself.
The wearer best knows where the shoe wrings him.
He that would thrive must rise at five; he that hath thriven may lie till sever.
When wine sinks, words swim.
Young men think old men fools, and old men know young men to be so.
808. CHEAP FILTER.-An earthenware funnel of a large size, with a piece of sponge placed at the bottom of it, admirably answers every purpose of a filter, and the whole apparatus may be procured for a few pence.
809. WASH FOR THE SKIN.-Four ounces of potash, four ounces of rose water, and the juice of two lemons mixed in two quarts of water.
810. COFFEE AS MADE IN INDIA.Put a quarter of a pound of ground coffee into a jug, and pour over it four quarts of boiling water; stir until the froth disap. pears; then cover up carefully with a towel, folded several times, so as to retain the steam, and let it remain twelve hours; then pour it off, and test as required, without boiling. It will keep several days.

## 811. AUGUST FOR THE BOYS AND GIRLS.

Cricket (continued from page 251.)

## Laws of Double Wicket.

1. The ball should not weigh less than five ounces and a half, nor more than five ounces and three-quarters; in circumference it should not exceed nine inches and a quarter, nor be under nine inches. A fresh ball may be called for by either party at the commencement of each innings.
2. The bat should not exceed four and a quarter inches at its widest part, or be more than thirty-eight inches in length.
3. There are three stumps. They must be twenty-seven inches out of the ground. The balis are eight inches in length.
4. The stumps are to be in the centre of the bowling-crease, which is six feet eight inches in length.
5. The popping-crease is parallel with the wicket; and four feet from it. It should notbeless, in length, than the bowling-crease.
6. The wickets are to be pitched by the umpires, at a distance of twenty-two yards apart.
7. The ground is not to be altered by rolling, watering, covering, mowing, or beating (except by mutual consent), during a match; but at the commencement of each innings, it may be swept and rolled at the request of either party, if such request is made to the umpires within one minute after the conclusion of the former innings. This rule does not prevent the striker from beating the ground with his bat near the spot where he stands during the innings, nor the bowler from filling up holes with sawdust or sand, after rain, \&c.
8. The position of the wickets may be changed by mutual consent after rain, \&c.
9. The bowler must deliver the ball with one foot on the ground behind the bowlingcrease and within the return-crease; he shall bowl four balls before changing wickets, which he shall be permitted to do once only in each innings.
10. The bowler shall not be allowed to throw or jerk the ball. In delivering it, his hand shall not rise higher than the shoulder, otherwise the umpire may pronounce such ball "no ball," and if the striker hit it, he may score all the runs he can get notwithstanding.
11. The bowler may require the striker to stand upon that side of the wicket he (the bowler) prefers.
12. If the bowler toss the ball over the striker's head, or bowl it so wide that, in the opinion of the umpire, it shall not fairly he within the reach of the batsman, he shall adjudge one run to the party whose innings it is; such a ball to be put down to the score as a "wide ball," but not to be reckoned one of the bowlers four balls. If by any means the striker shall reach such a ball, the run shall not be adjudged.
13. In the case of a " no ball," or "wide ball," the striker may get as many runs as he can, and can only be put out by running out. In case of no run being obtainable, still the one run for such balls is to be scored. In the scoring, the "no balls" and "wide balls" are particularised with the names of the bowlers annexed. If the ball touch any part of the striker's dress or person (except his hands), the umpire shall call out "leg bye."
14. The umpire at the commencement of an innings shall call out "play," and from that time no trial balls are to be allowed.
15. In the case of a ball or a stump being bowled down, the striker is out.
16. If the ball struck by the bat or the hand (not from the wrist), be caught before it touches the ground, the striker is out.
17. If his wicket is put down while both his feet are outside the popping-crease (except his bat be grounded within it), he is out.
18. The striker is out if in aiming at the ball he hit down his wicket.
19. If, under any feint of running or aiming, he prevent the ball from being caught, the striker is out.
20. Or if, the ball being once struck, he wilfully strike it again.
21. He is out if the wicket is struck down during a run-either by the ball singly, or by the hand (with the ball in it).
22. Also, if any part of the striker's dress put down the wicket.
23. Or if the striker touch or take up the ball while in play, unless with consent of the opponents.
24. Or if he in any way (except with his bat). intercept a ball, which, in the umpire's opinion, might have hit the wicket.
25. If the players have crossed each other, he that runs for the wicket which is put down, is out.
26. No runs are to be reckoned when a ball is caught.
27. A run attempted, but not completed, is not reckoned.
28. If a lost ball be called, the striker scores six runs, but if he shall have made more than six before the call is raised, he shall be allowed them.
29. If the striker be without the poppingcrease, before the delivery of the ball by the bowler, the latter shall be at liberty to put him out; unless (see law 21) his bat or one foot return to within the crease.
30. The striker, having retired from his wicket, shall not return to it and complete his innings after another has been in, unless with general consent.
31. Substitutes must be admitted only with full consent of the field, and are strictly bound by the laws.
32. Substitutes are only to occupy such a position as shall be agreed to unanimously.
33. If any fieldsman stop the ball with his bat, such ball shall be considered dead, and the opposite party shall be entitled to add five runs to their score. If any runs have been obtained they shall be scored as five.
34. The ball having been struck, the striker may guard his wicket with his bat, or with any part of his body except his hands.
35. The wicket-keeper must remain still until the ball has left the bowler's hands, nor must he take it up for the purpose of stumping, until it has passed the wicket; neither may he by voice or any other means incommode the striker.
36. All disputes are referable to the umpires, each of whom determines all cases concerning his own wicket; but in case of a catch, which the umpire at the wicket bowled from cannot see sufficiently to determine, he may apply to the other umpire, whose award shall be decisive.
37. The wickets are pitched by the umpires. The parties toss up for first innings. After each innings the wickets are changed by the umpires.
38. Two minutes are allowed for each striker to come in. Between each innings ten minutes shall elapse. When the umpires call play, the party unprepared or refusing to come in loses the match.
39. Umpires are not to order a striker out unless appealed to by the adversaries.
40. But in case of any infringement of law 9 , on the part of the bowler, the umpire shall call " no ball."
41. If either of the strikers run a short run, the umpire must call "one short."
42. Betting is forbidden to umpires.
43. No umpire is to be changed during a match, except he violate the preceding law, in which case either party may call for his dismissal.
44. After the delivery of four balls, the umpire must call "over"-but not until the ball is dead, i.e., finally settled in the bowlers or wicket-keeper's hand.
45. The umpire must call " no ball" as soon as it has left the bowler's hand, and "wide ball" immediately upon its passing the striker.
46. The players who go in second shall follow their innings if they have obtained eighty runs less than their antagonists, except in all matches limited to one day's play, when the number shall be limited to sixty instead of eighty.
47. When one of the strikers has been put out, the bat shall not be used by any person until the next striker comes in.

## 812. Single Wicket.

Single wicket is much more simple than double wicket, and is much more frequently played. It may be played by any number of persons ; the usual average number is four or six of a side. The distance between the stumps, the object of the bowler and striker, the weight and size of bats and balls, are the same as in double wicket, and the game will be fully understood by the following abstract of its laws :-

## 813. Laws of Single Wicket.

1. When less than five play on each side, two bounds are placed, each twentytwo yards distant from the wicket, in a line with the off and the leg stump.
2. The ball must be hit before the bounds to entitle the striker to a run, which cannot be obtained unless the striker touch the bowling stump or crease with his bat or some part of his person, and return to the popping crease, as at double wicket.
3. When the striker hits the ball, one of his feet must be on the ground, and behind the popping crease ; otherwise the umpire shall call "no hit."
4. If less than five play on each side,
neither byes nor overthrows are to be allowed, nor shall the striker be caught out behind the wicket, nor stumped out.
5 . The fieldsman must return the ball so that it shall cross the play between the wicket and the bowling stump, or between the bowling stump and the bounds. The striker may run until the ball be so returned.
5. After the striker shall have made one run, if he starts again he must touch the bowling stump, and turn before the ball shall cross the play, to entitle him to another.
6. The striker shall be entitled to three runs for lost ball, and the same number
for ball stopped with bat, as in double wicket.
7. When more than four play on each side, there shall be no bounds. All hits, byes, overthrows, stumping out, and catching behind wicket, shall be allowed.
8. The bowler is subject to the same laws as in double wicket.
9. One minute only shall be allowed between each two balls.

It may be added that, as there is but one wicket, the distance in running is double that of the double game. The run is sometimes shortened, and thus rendered less fatigueing by marking a crease at fifteen yards from the wicket.
814. Positions of the Players at Double Wicket.
off SIDE.


*     *         * The wickets.
b Umpire at bowler's wicket.
ON SIDE.
a a The batsmen.
c Umpire at striker's wicket.

1. Bowler.
2. Wicket keeper.
3. Long stop.
4. Point.

- $d$ Scores.

5. Short slip.
6. Long slip.
7. Cover point.
8. Mid wicket
9. Long field off.
10. Long field on.

11 Leg.
815. Practical Directions.-An experienced player is able to show the young cricketer more in an hour, by means of example, than whole volumes of written directions can hope to effect. Let the following paragraphs serve our young friends as texts, whereupon their elders in sport may comment.
Let them, book in hand, ask for practical elucidations, nor rest satisfied until they can do, and do well, all that the best cham. pions of the bat have done, and it will be their own fault if they fail in time to rival the glories of the Lillywhites of this and former periods.


Fig, 6.
816. The Bowler.-There are three principal sorts of bowling, the fast and slow, underhand and overhand. The ball is held with the seam across, so that the tips of the fingers may touch each other. Ask your tutor to show you this exactly, and practice it well before you proceed further. In bowling much depends upon the person (the striker) to whom you are opposed. You will have to study his weak points, and assail him upon these. Experience in this, as in everything else, is the best master.
817. The Wicket Keeper. - The wicket-keeper's place is one of importance, and some little risk. A ball missed by the striker may strike him, and hence dexterity in catching or dodging a ball is necessary. His duty is to stop the ball when it has passed (or been missed by) the striker, and to "stump" him if he can catch him off his ground. Temper and a quick eye are essential in the wicket-keeper, as by law 35 ,
any ebullition of feeling, tending to annoy the striker, is forbidden. He should also well understand the game, as he has to see that the fieldsmen are in their proper places, and give important directions to them ; these last are to be communicated by signs rather than by words, in accordance with the law (35) just referred to.
818. The Batsman (774).-Experience alone will make a good batsman. He should stand with his right foot just withinthe pop-ping-crease, and as near the block-hole as possible, so as not to be quite in front of his wicket. The bat in its first position should be placed exactly before the centre stump; it should be firmly grasped by the middle of the handle, the hands almost close to each other. The left shoulder is held a little forward in the direction of the bowler. The attitude is shown in Fig. 1, page 249.
819. The Short Slip.-The short slip acts for the wicket-keeper, when he momentarily leaves his post to get a ball, his position is within three or four yards of the wicket-keeper. He catches any thing that comes his way. A second short slip is sometimes placed between him and the point for balls dropping in that direction.
820. The Point.-Stand in a line with the popping-crease, at a distance of about seven yards from the striker. He can do good service if a good catcher.
821. Middle Wicket. - Should stand on the off side about seven yards from the bowler's wicket. He takes the bowler's place while he is away. He should be made of stern stuff so as to be able to stop a ball well.
822. Cover Point. -This player's place is indicated on the plan. He is not at all a superfluity, or his place always a sinecure. He may reap laurels by catching or returning the ball nimbly to where it may be most available.
823. Leg.-Stands just behind the striker, at about a dozen yards from the wicket.
824. Long Stop.-Should stand behind the wicket-keeper, his distance varying according to the style of the bowling. Skill is required here as well as elsewhere upon the field.
825. Long Slip.-The position of long slip is in a diagonal line with the striker,
and at a distance varying with the kind of play which his eye must determine.
826. Long Field, Off and On.-The position of these players are shown on the plan. Their duties are to catch or stop, and return balls sent in their directioneither to the wicket-keeper, or to some other player nearer them, if more advisable.


Fig. 7.
827. Catching the Ball.-Catching the ball deftly and securely-that is, catching it and holding it, not dropping it again as though it were something red hot-is the great object in these last-described posts, and the young cricketer should practice diligently this accomplishment. Fig. 7 represents a player who will probably catch the ball, but will most positively drop it again. In catching with both hands, the art consists in placing them firmly at the wrist, one above the other, not widely asunder, and upon the same level, as shown in the cut, which is given as an attitude not to imitate, but to avoid.
828. LIQUID GUM.-Put half an ounce of gum tragacarth into a wide-mouthed four-ounce bottle, pour upon the gum two ounces of hot water, let it stand for twelve hours, stirring it frequently, and then fill up the bottle with gin. This will keep for years, and never becomes mouldy or offensive. When it becomes too stiff add a little
more gin. more gin.

## 829. MODERN HOTELS.

## Station-hotels are among the luxuries of

 modern travel, and some of them, apart from their situation, are among the very best in the country. In the north, we may cite, by way of illustration, the Counties Hotel, at Carlisle, and the Sation Hotel, at York, and another at Hull, not inferior to these. In the south, the Lord Warden Hotel, at Dover, and in London, the Great Western Hotel, at Paddington, are excellent examples of what such establishments ought to be. There is little doubt that in all the principal towns of the kingdom, where the station is not in some hopelessly inconvenient part of it, first-class hotels attached to the railway buildings will spring up in due course of time; and that wherever we go, instead of being driven as of old, with the smacking of whips and the rattling of wheels into an inn-yard, we may be shot, as it were, through an archway, or up a flight of steps into a radiant coffee-room or a comfortable bed-chamber, a few seconds after the time indicated in Bradshaw's Guide. As railways make traffic, so such hotels as these make guests. The knowledge that there is good accomodation ob. tainable at a given place with no trouble, induces many a man to halt at places which he would pass through, if he 'thought that he would be compelled, on his arrival at the station, to go forth in search of a comfortable hotel. The principal customers of this description of house are mere birds of passage. Their sojourn generally is brief. They are there to day and gone to-morrow. For what is called the pleasure hotels, the case is different. The facility of travel and the consequent increase of tourists has caused a demand for "acommodation in all places where there is "anything to be seen," to which ample response has been made. The supply, indeed, is sometimes in excess of the demand, and competition has brought ruin. All the "show places" of the country have necessarily large hotels, which, during certain months of the year, may be crowded to excess, and during all the rest quite empty. In the latter part of summer, and the early part part of autumn, a rich harvest is made. The ground lies fallow during the other nine months of the year. Most of thesehotels, at the Lakes and similar places of resort, are comparatively modern children, as it were, of the rail. It is hardly possible that they should be model establishments. The very nature of the case prevents it. This fitful spasmodic kind of custom is not favourable to the maintenance either of good accomodation or moderate charges. Over-crowding and over-charging are the natural results. One hardly sees how they are to be helped.

Complaints upon this score are loud and frequent. It certainly is not reasonable to expect the proprietor of an hotel to keep his house open for twelve months, though he has customers only for three, and to vharge each individual guest in the height of the season, as though all the months were the same and the house continually crowded. His guests must pay for not coming oftener -for the time when they are absent as well as the time when they are present. The tax is one that falls principally upon the pleasure-seeker-a tax upon the luxury, not the necessity of travel. Scarcely, indeed, the whole question of hotel charges is fairly considered. That a reform in this direction has long been needed, it must be admitted; and there are even now symptoms that it has not been called for in vain. But it has become common to contrast foreign hotels with our own in a manner very injurious to the latter. The continental hotel system is widely different from our own, because the habits of the people are different. The continental hotel-keeper has always a number of resident customers. He depends greatly, but not wholly, upon travellers and tourists. At all times of the year there is business going on in his house. His table d'hôte is never deserted. He has probably a café and a restaurant attached to his hotel. He draws enough even in the slack season to enable him to keep his house open without loss. In England we only enter an hotel in strange places, far away from home. Such houses of entertainment have no place in the thoughts and concerns of our everyday life. Our gentlemen of the higher classes have, for the most part, their clubhouses, and our ladies have their homes. And the extravagance of hotel charges, in many places, results from the necessity of making the proceeds of three or four months meet the disbursements of the
whole year. And people, when they calculate what these charges ought to be, seldom bear in mind that, during a great part of the year, the profits of the house cannot possibly cover the expenses.
830. HIGHLAND CURE FOR THF MANGE IN DOGS.-Take two ounces of fox-glove leaves, put them into a jug and pour upon them a quart of boiling water. When cold, wash the dog with the liquor and repeat the washing every other day. A few drenchings mostly effect a cure.
831. FAIN'TNESS ON EARLY RISING.-When a person feels what is called a " sinking sensation" follow early rising, he may easily remedy it by eating a small piece of biscuit. It was upon such sustenance as this that Sir Walter Scott went through his morning's work, and produced his unrivalled fictions.
832. HORSE BREAD. - Colonel Kowatch, who in the American service commanded the infantry of Pulaski's Legion, had been an old partizan officer in the north of Europe, and had commanded a large corps of irregular horse. He had the horses grain formed into portable cakes and baked. It was fermented in an expeditious and simple way, by a kind of leaven, and it was found in its baked state to go twice as far as raw. Sheriff Pensori, who had a fine team of working horses, was in the habit of buying condemned ship bread, as the most nutritious and cheapest horse provender.
833. SUN BURNING.-It frequently happens that the redness of the face, after exposure to the sun and air, is the result of a disturbed digestion, and if accompanied by such symptoms as head-ache, crusted tongue, irregular bowels, \&c., such is sure to be the case. If, under ordinary circumstances, however, the skin is so sensitive by such exposure, the face should be washed with a solution, made by dissolving ten drachms of borax and one drachm of alum in a pint of water every day previous to going out.
834. CREAK1NG OF BOOTS AND SHOES.-This most arises from some peculiarity in stitching the soles together, and the best remedy is to have the soles repeatedly soaked in water, and hammered upon the last until the creaking is removed.


MR. WARINGTON'S AQUARIUM.
835. THE AQUARIUM.

Chap. IV.
Furnishing the Fresh-water Aquarium. Your vessel having been selected
placed in a safe and suitable position, you must next fit it up ready for the reception of its future inhabitants. So much being necessarily left to the individual taste and


Fig. 7.
fancy of the owner, we shall confine ourselves to giving general rules, leaving our readers to use their own judgment as to
what is most suitable and ornamental for the tank or vase they are furnishing. Rockwork.-The introduction of rock-


Fig. 8.


Fig. 9.
work into the Aquarium requires great taste and judgment, any artificial-looking erections giving to your tank or vase rather the appearance of a toy than of an intellectual ornament. Always try to imitate nature as nearly as possible, and remember that the plants and animals are the first consideration. In fresh-water vivaries a smooth bottom with a few rugged pieces of stone (engravings 1 and 5 in last No.) is far preferable to a massive arch, which burdens the vessel with unnecessary weight, and will soon prove an incumbrance
and an eyesore. It also darkens the tank, and will cause you to lose sight of many of your smaller and most valued specimens, who are much addicted to hiding in the crevices, and disappearing for indefinite periods.

The most simple arches are formed by setting one flat piece of stone on two or three vertical blocks, in imitation of a rude cromlech (Fig. 7) ; or by leaning two pieces against each other, and cementing them firmly together at the top (Fig. 8). In large tanks more license is of course
allowable, and a very pretty effect may be produced by carrying the rockwork above the surface of the water, leaving plenty of cavities in which to place ferns, \&c. You can then have a circular groove cut in the stone in which to rest the base of a glass shade, thus forming a Wardian case, and enabling you to preserve the most delicate plants the whole year through. (See engraving No. 2, in last No.) By having the two ends of slate you will be enabled to affix your rockwork to the sides. We give an illustration of the interior of one of Mr. Warington's tanks constructed in this manner, which has a very picturesque appearance. Arches should never be introduced into round or octagonal vessels, the only rockwork which we can recommend being a rude pile of stones, as in engraving, Fig. 9.

In any case be sure to fix your rockwork very firmly with Portland or Roman cement, which can be obtained at any plasterer's; it must be worked into a stiff paste and used immediately. A piece of slate should be used as a foundation to build upon. You must then let it remain in soak for at least three weeks, changing the water constantly, in order to get rid of the free salts, which act as a deadly poison to the animals. We have ourselves suffered from an infringement of this rule, and do not consider the rockwork safe until every sign of scum has disappeaaed from the surface of the water in which it is lying.
It will scarcely be necessary to warn our readers against the introduction of marine shells and coral into their miniature freshwater lake. We think it well to state, however, that such things have been done by persons evidently devoid of all taste.

The rockwork being firmly fixed and well seasoned, you should then cover

The Bottom.-On the first introduction of the Aquarium it was the generally received opinion that mould was necessary for the support of the plants, but experience has proved that, in most cases, they flourish just as well when their roots are merely covered with coarse sand or fine pebbles; aquatic vegetation deriving its nourishment from the water, merely requiring to be anchored, as it were, to the bottom, and, in many cases, preferring to float on the surface.
The great disadvantages of mud and clay are, that at first they involve frequent
changes of the water, and afterwards render it turbid when disturbed in the slightest degree by the animals, or in unavoidable alterations. They also cause a confervoid growth, and being, in nine cases out of ten, quite unnecessary, we strongly advise our readers to dispense with their use. Very coarse sand or sifted pebbles are far preferable, and what we generally use. They must be thoroughly washed, or may be the means of introducing some very unwelcome visitors, and need not be more than an inch in depth. If these are not procurable fine gravel is a very good substitute. Silver, red or yellow sand are undoubtedly objectionable, but, if washed until the water runs off quite clear, may be used on an emergency. We have tanks in which only very fine gravelly pebbles are used, and find them to succeed perfectly.
Some plants require earth, but, as these are exceptions, and generally of too large a size for introduction into ordinary vessels, we shall mention their proper mode of culture in the Botanical department.

A little water having been added, in order to render the bottom firm, you may next proceed to the
Planting.-As the picturesque appearance of the Aquarium depends in a great measure on the effect produced by the plants, great care should be taken in their selection, and time allowed for them to get firmly rooted before the introduction of their living companions. The best method of planting is to attach the bottom of the stem to a stone with a piece of bass, and sink it in the sand or pebbles. By this means the plant will be enabled to resist the attacks of your more destructive pets, and will get thoroughly established before the bass gets rotten. It will also be well to support the stem above ground with a few pebbles, Some plants should be gathered into bunches and set in the same way; others look well when sprouting from crevices in the rockwork. You must next add the

Water.-This should be as clear as crystal, and great heed must be taken that it be of the right description, or very serious consequences may be the result. If possible it should be obtained from a river or brook, but, should there le no running stream in the neighbourhood, spring or rain-water
must be resorted to. As the former frequently contains saline matter, which will prove injurious to the vegetation and to the fish (in some cases destroying their colour and depriving them of eyesight), it should always be proved with a few of your less valued specimens, before you introduce the entire stock. As most spring-water is very hard, it should be allowed to stand a few days, in order to be softened by the plants. Water supplied by companies, deriving their supply from the Thames or other rivers, will, in all cases, answer admirably. Rain-water may be used without danger, but will require to be passed at least once, and sometimes twice, through the filter, in order to render it clear; for, although it may look perfectly bright in a tumbler, it will present a very different appearance when contained in vessels a foot or more from side to side. Water which has been boiled or excessively heated, has also been deprived of its oxygen, and should by no means be used for Aquarian purposes.

IsLand.-If there is no rockwork above the surface, it is desirable to float a piece of cork with sloping edges, to serve as a refuge for the amphibia, which cannot exist entirely in the water. The picturesque appearance of many Aquaria is entirely marred by a common light-coloured cork, which is altogether ont of place. We recommend a piece about an inch thick, which should be burnt black and coated with sand (care being taken that the cement used is not injurious). A few small ferns may be planted in the centre, when the size will admit of a hole about two inches in diameter, which should be cut as deep as possible, and coated inside with gutta percha. Great taste may be displayed in making your miniature island look as natural as possible; and small frogs and the various kinds of newts look very pretty basking in the sun among the ferns. As these gentry are very fond of roaming, it will be found necessary to have your tank covered, when there is any danger of escape. (See Figs. 4 and 5, in last No.)

Covers are necessary in large towns, in order to keep out the blacks and dust, and are advisable in most cases to prevent your lively specimens from leaping or crawling out. A piece of muslin or green gauze will answer the purpose, but a cover of per-
forated zinc or glass is less troublesome. If plain glass is used, it should be rested on small pieces of cork, in order to admit air.

Stands.-The immense weight of an Aquarium necessitates a very strong support, and when a suitable table is not to be had, very good substitutesmay be constructed ont of old packing-cases, covered with red baize. We have a most useful and really ornamental stand made in this manner, which supports three large vases and a dozen jars of various sizes. Empty barrels den Aquaria.

## Chap. V.

## Selection of Stock for the Fresh-water Aquarium.

In order to render our treatise as concise as possible, we shall divide the portion devoted to fresh-water vivaries into three sectionsthe first and present relating exclusively to the Aquarium, its construction and management; the second to contain a classified description of every British aquatic plant, with remarks on its domestic cultivation; the third, treating on fresh-water Zoology in all its branches. In the present chapter, therefore, we shall content ourselves with merely giving hints on the general selection of stock, referring our readers to the Botanical and Zoological sections for detailed information.

We were asked by a lady some time since how to stock an Aquarium which she had just purchased for her drawing-room, and shortly afterwards the same question was put to us by a gentleman whose object was study. To the former, we gave a list of those plants, fishes, mollusca and amphibia, which have the prettiest appearance and require the least attention; and advised the latter to invest in several small vases in preference to one large one, as it is impossible to keep a great variety of specimens in one vessel.

It is decidedly our opinion that no insects (with the exception, perhaps, of the caddisworm) are admissible into the Aquarium, but that the entomological division should be kept apart in a series of small vessels, forming a "Cabinet Aquarium," of which we shall speak more hereafter. The large water beetles, Hydrous pieeus, have been very generally mentioned as perfectly harmless, which is true as far as the animal part
of the community is concerned; but even these will be found very destructive to the vegetation when building their nests, frequently stripping the leaves off the plants, and leaving nothing but the bare stem. Nearly all the other species of aquatic insects are positively dangerous, but, being undoubtedly the most interesting objects of an aquarian's study, suitable vessels should be provided for their reception, where they can be carefully grouped and examined. The great thing which all beginners must particularly guard against is overcrowding, which is sure to result in the death of a great part of the collection. We, therefore, recommend our readers not to fully stock their vessels at first, but to add the specimens by degrees, by which means they will have a much better opportunity of remarking the peculiar characteristics of their pets, and will derive an additional source of amusement by watching them both individually and collectively. They can also better regulate the relative proportions of animal and vegetable life ; and, as the most careful management will not always prevent accidents, they will be enabled to gain experience without much risk.

Stocking Quickly.-Notwithstanding our injunction not to be in too great a hurry, we think it advisable to give instructions how to act when circumstances will not allow of your taking things leisurely. As a general rule we prefer bottom to surface plants, the latter frequently giving to the Aquarium an untidy appearance, and being sadly in the way during alterations: they answer best, however, when time is an object, as they are established immediately on introduction, an advantage over bottom plants, which require some time before they give out sufficient oxygen to supply their living companions. A tank or jar may be stocked in a few minutes by having the water well aerated, and completely covering the top with Water Starwort. Your whole stock may then be added, with the exception of the mollusks, which had better be put in three or four days afterwards. As this style of vegetation is not of a very ornamental description, we strongly advise our readers, in cases of emergency, to convert a bucket or foot-bath into a temporary Aquarinm, and get their vase or tank well seasoned and their vegetation strengthened
previous to the introduction of the animals.

Plants.-When we say that surface plants are not to be recommended, we refer more particularly to those descriptions which are of delicate construction, and apt to get broken and disarranged.

The "Frog-bit," tops of the "Water Crowfoot," and other broadly lobed species, are altogether unobjectionable; and, as they are good purveyors of oxygen, and afford a pleasant shade for the fishes and resting place for the amphibia, they shonld on no account be omitted. The other floating plants which are most easily met with are-

The Hornwort lives well, and is very useful.

The floating Pondweed, common and pretty.

Water. Starwort, better adapted for entomological jars than the Aquarium, except when used as a bottom plant.

The Duckweeds, also very pretty additions to the cabinet.

The plant of primary importance to the aquarian is undoubtedly the

Valisneria Spiralis, which grows freely, causes little refuse and has a very charming appearance. It requires to be firmly rooted, as do also all the plants contained in the following list, which are arranged in the order in which they are most to be recommended for the Aquarium:-

The New Water Weed, or Water Thyme, for ordinary purposes a most useful plant, very pretty, grows rapidly, and merely requires to be tied in bunches and attached to a stone.

The Water Crowfoot, grows very rapidly, and to be found in nearly every pond or ditch.

The Pondweeds may be found in great variety, and are very easily cultivated.

The Water Milfoil, a slender plant, which should not be overlooked.

The Water Soldier, not uncommon, and should be used a centre or background to more delicate plants.

The Water Plantain.-Peculiarly adapted for the Aquarium, and may be had of the
dealers.

The Awl-wort.-Flowers under water, and of pleasing appearance.

The Water Violet.-Well worth the
trouble of seeking, and grows well with care.

Marestail.-Found in deep streams, and requires a good deal of soil.

The Small Yellow Water Lily.-Scarce, but very valuable, if procurable.

The Large Yellow Water Lily.-Common, and may be grown with effect in large tanks.

The White Water Lily.-Too large for any ordinary Aquarium.

Stoneworts.-Very beautiful and delicate, but must be kept in separate jars on account of their minuteness.

Our space will not admit of here mentioning the less common varieties of aquatic plants, detailed accounts of which will be found in the Botanical department.

Many of our prettiest flowers are amphibious, preferring marshy to dry habitations, and may be successfully cultivated by being planted on the margins of the rockworkhalf in and half out of the water.

The Marsh Marigold, Sundew, Forget-meNot, Stitchwort, Ragged Robin, and a variety of beautiful plants, may be thus advantageously introduced into your aquatic garden, and will have a very charming and pleasing effect.

Fish.-There is a tribe of fishes, all the varieties of which will, without an exception, thrive well in the Aquarium. This is the Carp or Roach family, which embraces most of our fresh-water fishes, and specimens of which may be met with in almost every river or lake in the kingdom. It includes

The Common Carp, not so valuable as
The Prussian Carp, which, with
The Golden Carp, have the decided preference over every other fish.

The Crucian carp, scarce.
The Roaci, and
The Dace, very lively and pretty, but delicate in summer.

The Tench, hardy but not handsome.
The Minnow, indispensable.
The Bleak, as beautiful as delicate, and will only live in the winter.

The Loach, an amusing variety, but requiring attention.

The Gudgeon, more hardy than attractive,
The Chub, which,
As well as the Barbel, Bream, \&c., are either too large or too scarce for general adoption.

The Perch and Stickleback are very dangerous companions, and should not be introduced into general collections; the latter species, however, well deserves a vessel to itself, and will amply repay any amount of attention. The salmon tribe can only be kept in very extensive tanks, as also Pike, which are so voracious that they will attack and destroy fishes half as large again as themselves.

Mollusca.-The Planorbis corneus is undoubtedly the most ornamental and useful, because least dangerous, snail for your water vivary; it does little harm to your plants, but, at the same time, does little work, so that they require to be numerous in order to perform their duty efficiently. The Paludina vivipara is of next importance, and will answer well where there is only strong vegetation. Lymnea stagnalis, the common marsh snail, prefers feeding on the plants themselves to the decaying matter, and should therefore be excluded. The other varieties, as also the bivalves, are of little value and will be mentioned hereafter.

Reptiles.-The various kinds of newts, frogs, and tadpoles, are among the most interesting tenants of an Aquarium, and should on no account be omitted.

Crustacea.-Cray fish will well repay any amount of attention, but are very seldom kept alive for any lengthened period. The fresh-water shrimp also lives only a short time in confinement.

General Selection.-For the convenience of such of our readers as have never paid any attention to the subject, we subjoin a list of what we consider to be the most pleasing, ornamental, and easilymanaged collection of animals for vessels of from three to twenty gallons capacity. All the specimens which are more or less delicate, or which thrive well only during the winter months, are enclosed in brackets [], and those which are apt to be troublesome and require a good deal of attention are inserted in italics. Those fishes with an asterisk (*) attached to them, are only suitable for cold weather, and must be substituted for some of the others named before.

Three Gallons.-Two gold carp, one Prussian carp, two minnows, one gudgeon
(all very small) ; six planorbis, one mussel, and three or four caddis worms.

* [One roach, and one dace].

Six Gallons.-Add one silver, one Prussian, and one crucian carp, one tench, a small eel, and four more planorbis.

* [Two roach, and two dace].

Nine Gallons.-Increase the size of the fish; add two gold and one Prussian carp, [three loach]; three or four newts, three paludina,

* [Two roach, two dace, and three bleak].

Twelve Gallons.-Six gold, two silver, four Prussian, and one crucian carp [four loach]; two gudgeon, two tench, one chub, [two small perch]; six minnows, two eels, six newts, twelve planorbis, six paludina, three mussels, a dozen caddis worms.

* [Two roach, two dace, three bleak].

Sixteen Gallons.-Add two large Prus. sian carp, two eels, one bream, half a dozen minnows and six paludina.

Twenty Gallons. - Increase the size of all the fish, and add a dozen mollusks.
A detailed account of the above and scarcer varieties will be found in the third and last division of our treatise.

## Chap. VI.

Practical Hints for General Management. Although it is impossible to mention remedies for all the minor evils and contingencies which may arise after your Aquarium is once fairly started; a study of all the books ever written not being sufficient to render experience unnecessary; we will do our best to give such general directions as will prevent any serious harm befalling your aquatic pets. As nearly every writer on water-vivaries materially disagrees with all his predecessors, we cannot hope to suit everybody's taste or wants:-all we can do is, to give the results of our own experience, leaving our readers to improve upon our suggestions.

Changing the Water.-When your Aquarium is firmly established, change of water will be found quite unnecessary, a small quantity only requiring to be added from time to time in order to compensate for evaporation. Until such is the case, however, and experience has been gained, a partial change or artificial aeration is sometimes indispensable, and in cases of accident it will often be advisable to remove the con-
tents altogether, thoroughly cleanse your tank, and start afresh. For this purpose a siphon should be provided, which may be either of glass or gutta percha. This simple contrivance merely consists of a tube, bent so as to let one end be longer than the other, the shorter being placed in the Aquarium, and the longer over the vessel into which the water is to be emptied; upon the air being extracted, the water rushes in to supply its place, and will afterwards flow in an uninterrupted stream until it attains its own level. In consequence of many complaints having been made of the necessity for either extracting the air with the mouth, an unpleasant operation when the water is salt or foul; or for filling the tube with water before introduction; a process of some difficulty when it is of any length; a siphon has been invented which is self-acting, and of which we give an engraving (10). The short end, $a$, should be long enough to reach within half an inch of the bottom and for the purpose of drawing the water into the tube the india-rubber expanding ball, $b$, should be compressed, and the finger then placed over the aperture at the long end, $c$. On the ball being let go it will, in assuming its original size, extract the air from the tube, and cause the water to enter. These siphons cost three shillings, and can be obtained at the waterproof warehouses. In some cases a long tube will be found convenient, as the end can be carried through the window and the water used for the garden.

Removing Specimens.-Every Aquarian should possess a small hand-net, about three inches in diameter, and made either of gauze or fine net-work. It can easily be constructed at home by twisting a piece of brass wire into a ring and affixing it to a small cane, or can be purchased at any fishing tackle shop for a shilling. Great care should be taken not to handle the fishes or disturb them unnecessarily, another vessel always being immediately at hand ready for their reception. For removing small specimens glass tubes are necessary, which should be used as represented in our engraving (11). The small aperture at the top should be covered with the finger, and the tube being placed in the vessel, the water will be unable to enter until the finger is
removed, when it will rush in to supply the place of the air which it expels, and will carry with it any small objects which may be near the wide end. The tube should then be quickly inverted, and the contents carefully poured into a small vessel where they are not likely to be lost sight of. A pair of long forceps will also be found useful, wooden glove stretchers answering the purpose admirably.

Cleansing will sometimes be requisite even in the best regulated Aquariums, and a sponge should be used for the pur. pose of removing the green coating which obscures the glass. It should be fastened to the other end of the stick to which the hand-net is attached (Fig. 12), and must be carefully rubbed over the surface, until the glass is perfectly clear, being frequently washed in clean water during the process.


When this mode of cleansing is found insufficient to remove the conferva, it will be necessary to empty your jar or tank, and scour the sides with fine sand or pumice-stone. This, however, must only be done in extreme cases, and after all hope of natural means has been given up ; a little patience and extra care that the mollusca perform their duty, being generally all that is required.
Aeration.-Whenever the fishes come to the surface, for the purpose of gulping air, it is a sure sign of the absence of the vivifying principle, and in such cases the water must be either renewed or artificially supplied with oxygen. When the size of the tank will admit of it, a tube connected with a pair of bellows should be conducted into it, in order to supply air whenever there seems to be an exhaustion of that in-
dispensable commodity. Blowing the bellows produces a very pretty effect, as the bubbles of air ascend, and is always an acceptable occupation to visitors or children. A common syringe is useful for aerating small vessels.

Regulation of Temperature must be carefully attended to, both in summer and winter. In order to indicate when the water is too warm or cold, a small thermometer should be suspended in it. When it rises above 65 deg. a wet cloth may be placed outside the glass, and when it sinks below 45 deg . it shows that a fire is necessary in the room. Some fishes and plants will bear a much higher or lower temperature than others, and it will, therefore, be advisable in winter to divide your specimens, placing the most delicate in the warmest situation.

Aspect.-The unchecked action of the sun on your Aquarium, for any lengthened period, will invariably render the water turbid, and give rise to such a rapid confervoid growth as will cause your mollusca to be altogether insufficient for its removal. The best aspect is either south-east or southwest, where you seldom have more than three hours sun per diem. When your window looks due south it will either be found requisite to construct a screen of green muslin, or to draw down the blinds at stated periods-the former course being much the least dangerous. In a northerly aspect your vivaries will give a great deal more trouble with much less chance of success, no fresh-water plants thriving well unless exposed for at least an hour every
day to the direct influence of the sun's rays. By a little management it is easy to construct a screen which will admit the sun for two hours daily, and a very agreeable light for the rest of the day.

Feeding.-This is at all times a delicate operation, requiring much care, and should be performed as seldom as possible. Where there is plenty of water and vegetation, in comparison to the amount of animal life, it will be found altogether unnecessary; but, as that is seldom the case in small private collections, a little additional food supplied from without is sometimes indispensable. We generally feed our fish once a week, and are much amused during the process, there being no small difficulty in letting each get its proper share, and preventing the more

Fig. 16.

active from getting all the prizes. White of egg is the best vegetable diet, but soon becomes distasteful to your pets, if not accompanied by something more palatable, in the shape of small red worms, flies, \&e. All the rejected morsels should be carefully removed within twenty-four hours, or will putrify and foul your tank. Baker's bread should on no account be used, as the alum, which is invariably contained in it, acts as a deadly poison. Small balls of dough may be used sparingly, but are not so cleanly as white of egg, the remains of which are much more easily cleared away.

Diseases.-Exhaustion is the most common ailment to which the tenants of an Aquarium are liable, the remedy being removal to fresh water, which should be well aerated for some minutes with a syringe. Recovery will then sometimes take place, even after they have apparently given their last gulp at the surface. One fish which has been in your possession for any length of time is worth six new ones, and should be valued accordingly. The most sturdy-looking specimens often give way the soonest, being less active in theirsearch after the necessaries of life. When the caudal fin gets covered
with a sort of fungus, the diseased portion may sometimes be removed altogether without harming the fish, which seems to thrive just as well, minus this appendage. Mr. Hibberd mentions two minnows in his collection which have been operated upon in this manner, and are still alive and well. A little silver sand sprinkled upon a diseased fish will cause it to rub itself, sometimes removing any cutaneous eruption of recent growth. Removal from the Aquarium is of course requisite until after recovery.
Examination.-A microscope is an almost indispensable companion for the Aquarium, for without it some of the most interesting results are altogether unobservable. For ordinary purposes a common reading glass is useful (Fig. 13), or the condenser of a compound microscope (Fig. 14) may be advantageously substituted, as it can be placed on the table and raised to the required height, leaving both hands of the spectator free. The cheapest microscope is a common pocket lens, which may be had with either one, two, or three powers (Fig. 15), costing from 1s. to 12 s .6 d . To naturalists we can safely recommend Mr. Warington's Compound Universal Microscope, which was originally invented expressely for the Aquarium, and is excellently adapted for viewing any living objects which may either be in contact with the glass sides or removed from the tank. It is simple, light and portable, and may be had of Mr. Salmon, of 100 , Fenchurchstreet, with condenser and st ge forceps, for three guineas. (Fig. 16.)

We must now conclude our remarks on the construction and management of the Aquarium, and shall devote our next paper to an account of the flowering plants to be met with in our rivers, lakes, ponds, and ditches.

## 836. GRAPES PRESERVED IN

 VINEGAR.-Grapes are preserved in vinegar by the Persians after the following fashion:-The grapes are gathered when half ripe, and put into bottles half-filled with vinegar, which so macerates them, that they lose their hardness, and yet do not become too soft. The grapes have a sweet acid taste, which is not unpalatable, and especially refreshing during the great heats.
## 837. CHICKEN-POX.

Varicella, as chicken or glass-pox is professionally called, in strict propriety may be classed as a mild variety of small-pox, presenting all the mitigated symptons of that formidable disease. Among many physicans it is, indeed, classed as smallpox, and not a separate disease ; but as this is not the place to discuss such questions, and as we profess to give only abstract facts, the result of our own practical experience, we shall treat this affection of GLass or CHICKEN-POX as we ourselves have found it, as a distinct and separate disease.
838. Chicken-pox is marked by all the febrile symptoms presented by smallpox, with this difference, that each is particularly light. The heat of body is much less acute, and the principal symptoms are difficulty of breathing, head-ache, coated tongue, and nausea, which sometimes amounts to vomiting. After a term of general irritability, heat and restlessness; about the fourth day, or between the third and fourth, an eruption makes its appearance over the face, neck, and body; in its first two stages closely resembling small-pox, with this special difference, that whereas the pustules in small-pox have flat and depressed centres -an invariable characteristic of small-poxthe pustules in chicken-pox remain globutar, while the fluid in them changes from a transparent white to a straw-coloured liquid, which begins to exude and disappear about the eighth or ninth day; and in mild cases by the twelfth disquamates entirely.
839. There can be no doubt that chicken-pox, like small-pox, is contagious, and under certain states of the atmosphere becomes endemic. Parents should, therefore, avoid exposing young children to the danger of infection, by taking them where it is known to exist, as chicken-pox in weakly constitutions, or in very young children, may superinduce small-pox, the one disease either running concurrently with the other, or discovering itself as the other declines. This, of course, is a condition that renders the case very hazardous, as the child has to struggle against two diseases at once, or before it has recruited strength from the attack of the first.
840. Treatment.-In all ordinary cases of chicken-pox-and it is very seldom it assumes any complexity-the whole treatment resolves itself into the use of the warm bath, and a course of gentle aperients. The bath is indicated when the oppression of the lungs renders the breathing difficult, or the heat and dryness of the skin, with the undeveloped rash beneath the surface, shows the necessity for its use.
841. As an aperient, the prescription 732, in small-pox, may be used, in the same dose and frequency as ordered in that
disease.
842. As the pustules in chicken-pox very rarely run to the state of suppuration, as in the other disease, there is no fear of pitting or disfigurement, except in very severe forms, which, however, happen so seldom as not to merit apprehension. When the eruption subsides, however, the face may be washed with elder-flower water, and the routine prescribed in the convalescent state of small-pox.
843. The next disease which we propose treating under the head of Infantine Diseases, is one that, according to the laws of old women and female prophets, everyone, whether man or woman, must have one time between their birth and death, namely, the thrush, an opinion which our readers will readily believe we by no means coin.
cide in.*
844. Apthe, or Thrush, or, as it is sometimes called, throcks or lily, is a disease to which infants are peculiarly subject; in whom alone it may be said to be a disease; for when thrush shows itself in adult or advanced life, it is not as a disease proper, but only as a feature, symptom, or accessory, of some other ailment, generally of a chronic character ; and has no more right to be classed as a separate affection than the petechæ, or dark-coloured spots that appear in malignant measles may be considered a distinct affection.
845. Thrush is a disease of the follicles of the mucous membrane of the alimentary canal, whereby they form small vesicles, or

[^7]bladders filled with a thick mucous secretion, which bursting, discharge their contents, and form minute ulcers in the centre of each vessel. To make this formal but unavoidable description intelligible, we must beg the readers patience while we briefly explain terms that appear so unmeaning; and make the pathology of thrush fully familar.
816. The whole digestive canal, of which the stomach and bowels are only a part, is covered from the lips, eyes, and ears, downwards, with a thin glary tissue, like the skin that lines the inside of an egg, called the mucous membrane; this membrane is dotted all over, in a state of health by imperceptible points called follicles, through which the saliva, or mucous, secreted by the membrane, is poured out.
847. These follicles, or little glands, then becoming enlarged, and filled with a congealed fluid constitute thrush in first stage, or when the child's lips and mouth appear a mass of small pearls; as these break and discharge, the second stage, or that of ulceration, sets in.
848. SyMPTOMS.-Thrush is generally preceded by considerable irritation; in the child crying and fretting, with greater redness of the lips and nostrils, hot foeted breath, with relaxed bowels, and dark feculent evacuations; the water is scanty and high coloured; considerable difficulty of swallowing, and much thirst, are the other symptons, which a careful observation of the little patient makes manifest.
849. The situation and character of thursh shows at once that the cause is some irritation applied to the mucous membrane, and can proceed only from the nature and quality of the food. Before weaning, this must be looked for in the mother and the condition of the milk; after that time, to the crude and indigestible nature of the food given. In either case, this exciting cause of the disease must be at once stopped. When it proceeds from the mother, it is always best to begin by physicing the infant through the parent, which has the double object of benefiting the patient, and at the same time correcting the state of the mother, and improving the condition of her milk. In the other, by totally altering the style of food given, and substituting far-
rinaceous food, custards, blanc mange, and ground rice puddings.
850. As an aperient medicine for the mother, the best thing she can take is a dessert spoonful of carbonate of magnesia, once or twice a day, in a cup of cold water; and every second day-for two or three times-one of the aperient pills prescribed, No. 591.
851. As the thrush extends all over the mouth, throat, stomach, and bowels, the irritation to the child, from such an extent of diseased surface, is proportionally great, and before attempting to act on such a tender surface, by opening medicine, the better plan is to sooth by an emollient mixture, and for that purpose let the following be prepared :-
852. Take of castor oil, two drachms; sugar, one drachm ; mucilage, or powdered gum arabic, half a drachm. Tritulate till the oil is incorporated, then add slowly, mint water, one ounce and a half; laudanum, ten drops. Half a teaspoonful three times a day, to an infant from one to two years; a teaspoonful, from two to three ; and a dessert spoonful at any age over that time.
853. After two days' use of the mixture, one of the following powders should be given twice a-day, accompanied with one dose daily of the misture:-Grey powder, twenty grains ; powdered rheubarb, fifteen grains; scammony, ten grains. Mix. Divide into twelve powders, for one year; eight powders from one to two; and six powders from two to six years old. After that age double the strength, by giving the quantity of two powders at once.
854. It is sometimes customary to apply borax and honey to the mouth for thrush; but it is always better to treat the disease constitutionally, rather than locally. The first steps, therefore, to be adopted are to remove or correct the exciting cause-the mother's milk or food; allay irritation by a warm bath (see No. 493), and the castor oil mixture, followed by and conjoined with the powders.
855. To those, however, who wish to try the honey process, the best preparation to use is the following :-
856. Rub down one ounce of honey with two drachms of tincture of myrrh, and apply it to the lips and mouth every four or six hours.

## 857. PHENOMENA FOR AUGUST.

The changes of the seasons, and the varieties of temperature, have been explained. The manner in which these act upon vegetation, to produce the various tints of the autumnal months, must be reserved for a future chapter to enable us to notice, in its proper order, the sequel to the chapter on clouds. Associated with the remembrance of their fantastic beauty is the majestic grandeur of the thunderstorm. Those exquisite vapour wreaths, that look sometimes like snowy garlands to decorate the blue triumphal arch of heaven, at other times assume a darker hue, and remind us of the contests of the angels, which the sublimest poet has described; for those mountainous heaps of vapour grow into dark rolling masses, such as might be imagined to result from the "artillery of heaven :" and often, too, from out their murky bosom flashes a streak of forked fire, dazzling, and sometimes even destroying, the sense of sight with its brightness ; and then the ponderous thunder-whose sound has been compared to "the rolling of the chariot wheels of God o'er the blue floor of heaven "-comes, with its astounding vibration, shaking the solid earth, and startling all creation with fear.
858. It has already been explained that clouds are composed of water in a vesicular condition. Each of the vesicles is charged with electricity, which it has derived during the process of evaporation, and which is the probable cause that this peculiar state of water which is discovered in the clouds has any degree of permanence. The repulsion produced by the vesicles being charged with the same kind of electricity, is believed to be sufficient to prevent coalescence between the bladders of water and the formation of rain. "It is probable, moreover," says Professor Thompson, "that when two currents of air are moving different ways, the friction of the two surfaces may evolve electricity; should these two currents be of different temperatures, a portion of the vapour which they always contain will be deposited; and the electricity evolved will be taken up by that vapour, and will cause it to assume a vesicular state constituting a cloud." Some clouds are charged with
vitreous, others with resinous electricitythat is to say, that they may be either positive or negative ; and when two masses of vapour thus oppositely charged approach each other, a flash of lightning passes from one to the other ; and the discharge, accompanied by a tremendous report, dissipates the electricity which was neeessary to the maintenance of the vesicular condition of the vapour, and rain-drops are immediately formed. Hence heavy rain invariably accompanies a thunder-storm, at the same time that it diminishes its dangers. The discharges of electricity usually take place between different strata of air in different electric conditions, or between clouds. Rarely, a cloud charged with one kind of electricity nears the earth, which is in an opposite condition, and then the flash is from the earth to the cloud, or more commonly from the cloud to the earth. In the latter case a " thunder-bolt" is said to fall.

858*. When, however, an electric spark passes from the atmosphere to the earth, no material or substance can be discovered; and the descriptions which have been published of so-called "thunder-bolts" are for the most part fabulous. At the same time it is to be admitted, that meteoric stones have fallen from the sky, accompanied with a loud noise like thunder; but these are of an entirely different nature from a discharge of electricity, and are called aërolites, or wandering stars. It will be sufficient here to say, that they are composed of iron in a high state of purity, presenting marks of recent fusion, and have been supposed to be portions of some shattered planet, whose parts are still revolving round the sun in eccentric orbits, approaching that of the earth at set periods so nearly, that the attraction of our mass is sufficient to drag them from their courses, and to draw them to the surface of our planet.
859. The devastation and marks of vio. lence produced by a discharge of electricity from the clouds to the earth, suggested to our ancestors the idea of the action of some solid body sent with violence against the objects it shattered; but with the progress of science, men have learned that the agent which can shatter a tower, demolish a spire, fire a powder magazine, split rocks, rend trees, and instantaneously destroy life, with
scarcely a mark to show a trace of its operation, is an imponderable agent, that is, a thing without weight or substance, only manifesting effects-like heat. This is called electricity, because it was found that phenomena of a similar character can be produced upon a small scale by rubbing amber (called electron by the Greeks), or vitreous or resinous substances. This relation between what was called electricity and the nature of lightning, was discovered only in recent times by Benjamin Franklin, the son of a tallow-chandler, and a printer's apprentice; afterwards Doctor of Laws, Fellow of the Royal Society, and Minister Plenipotentiary from the United States of America. The discovery of oxygen was owing to the use of a simple bird fountain; and the identity between lightning and electricity was proved by a schoolboy's toy -a kite. Hence, let us learn, en passant, that every station, however humble, has opportunities of adding to human knowledge; and that no instruments, however insignificant, are to be thought useless in our examination of the beautiful world around us.
860. Before Franklin suggested his remarkable experiment, it had been demon. strated that electricity is attracted by points, and, if highly excited, that it discharges itself with a flash and report. Moreover, the atmosphere was known to be susceptible of electrical influences; and it was urged by the philosopher, that the analogies which existed pointed, at the least, to a probability that lightning was a discharge of electricity. With a view to settle the question, he made the following experiment:-A kite was made, with a pointed wire fixed to the stick which formed its centre, and this was elevated in the air during a thunder-storm; as the string became wetted, and so formed into a conductor of electricity, vivid sparks and sharp reports passed from the lower end of it, and no longer was there any doubt but that lightening and electricity were identical.
861. The noise which we call "thunder" is usually heard after a discharge of electric fluid from the clouds; but not always. If the clouds approach bodies having a great number of points, or are themselves more or less fringed, a broad flash, consisting of innumerable small sparks, may be seen, and no noise will follow. To perform the ex-
periment upon a small scale, the student may present to an electrical machine, from which large sparks would fly to the knuckle, a bunch of pointed instruments-such as darning-needles; he will find that to these needles the electricity will stream off almost in silence. If the experiment is conducted in the dark, the effects will be very evident. Generally, nevertheless, thunder accompanies an electric discharge from the clouds. The character of the sound is variable: it sometimes resembles that which we hear when a single cannon is fired; at other times it is a rolling noise, like that produced by several great guns fired quickly one after another; and sometimes, again, it has a sharp cracking sound, like the reports of a number of rifles fired in rapid succession. The physical cause of the detonation is not well understood; it is probable, however, that the lightning, owing to the difficulty with which it passes through the air-which is a bad conductorraises the temperature of that medium to an extreme, and produces a sudden expansion, which is followed by as rapid a condensation. Moreover, an alteration of the composition of the air takes place to a slight extent, nitric and nitrous acids being produced by a union of the oxygen with the nitrogen of the air, in consequence of which further condensation takes place. From these causes arises so violent a disturbance of the air that violent vibrations follow, constituting the sound of thunder. Various reasons have been assigned for the prolongation of the sound, but none of them appear to be quite satisfactory alone ; probably all of the causes which have been mentioned combine to produce the lengthening out of the report. It was formerly supposed that the rolling noise was merely a succession of echoes, or of reflected sound falling upon the ear in a succession, according as the objects reflecting the undulations were near or distant. Clouds, mountains, forests, buildings, or rocks, were the reflecting agents, in this supposition, which was founded upon the fact, that the noise of fire-arms discharged in a mountainous district is prolonged by echoes during. at least half a minute, or about the time during which the rolling of thunder continues. But it is singular that this prolongation of the sound
is not always heard, as it should be if this theory afforded a complete explanation of its cause ; on the contrary, we find that, when the heavens are uniformly covered with clouds, a flash of lightning will dart from the zenith, and a crash of thunder follow it, without prolongation: within a few minutes of the first discharge a second discharge may occur in the same part of the sky, and yet be accompanied by the rolling prolongation. From this it would appear that there must have been something different in the character of the two discharges, and that the "roll" was not entirely due to echoes. These peculiarities may, perhaps, be explained by remembering how the different sounds produced by the explosion of gunpowder, to which the various kinds of thunder have been com. pared, are created: for example, as the firing of a single great gun produces a quick booming sound, so the short crashing kind of thunder with prolongation may arise from a great, but single electric discharge ; as the firing of several great guns in succession produces a rolling sound, the prolonged roll of thunder may, perhaps, arise from a number of electrical discharges, either following each other, or taking place at once at different distances from the ear. Now, it has been observed by Dr. Hooke, that "the flashes of lightning are simple or multiple : the former occupy only but one small portion of space, and give rise to an instantaneous report; the multiple flash takes place at different parts of one long line," and a number of reports come in the order of distance to the observer.
862. The flash of lightning and the report takes place at the same moment ; but, since sound travels at the rate of rather more than eleven hundred feet in a second, while for short distances the passage of light may be considered instantaneons, it follows that, on counting the number of seconds between the flash and the report, the distance of the thunder-cloud may be ascertained in feet, by multiplying 1,100 by the seconds counted. Thus, if five seconds elapse between the flash of the lightening and the first sound of the thunder, the distance of that discharge would be 1,100 multiplied by 5 , equal to 5,500 feet, or about a mile.
863. An opinion exists that thunder has been heard when the sky was without a cloud; but the fact cannot be said to rest upon good authority. In some cases, the subterranean sounds which precede earthquakes have been mistaken for thunder. It is, however, worthy of remark, that death has occurred from the passage of electricity from the earth to strata of air, when thunder-clouds were at a great distance.
864. Thunder and lightning are believed not to occur in the arctic or antarctic regions, beyond the seventy-fifth degree of north latitude; and even as low as the seventieth degree these phenomena are very rare.
865. Though the noise of thunder is very awful, it cannot be considered dangerous. The real danger is from the lightning, which has a tendency to fly off from the over-charged clouds towards the earth, from which the electricity has passed during the evaporation of water. The nearer the cloud to the earth, the more likely is a discharge to take place ; and hence, the tops of mountains, or of high buildings, are most frequently the points of attraction and discharge. Where the electric discharge has the opportunity of passing to the earth without opposition, or a long conductor of electricity (such as a metallic bar), it does not do any mischief; on the contrary, where the object through which it seeks a passage to the ground is an imperfect conductor, it is always more or less shattered. The reverse is also true ; for, if the electric fluid seeks a passage from the earth to the clouds through the substance of a high building composed of badly conducting materials, equal mischief will result. To obviate these dangers, it is usual to attach a metal rod to the side of valuable or high buildings, in such a manner that its upper end shall extend to some distance above the highest part of the erection, while the lower end is carried down into the earth for a considerable distance. Experience has proved that pointed rods contrived thus to facilitate the passage of the lightning to the earth, protect the buildings with which they are connected, by producing a gradual discharge from the thunder-clouds passing over them. They should extend from twelve to thirty feet above an ordinary
house, and should be carefully constructed, to secure an uninterupted passage of the electric fluid to the earth. To prevent the points becoming blunt by rust, they should be made of copper covered with gilding, or of platinum ; and to prevent the rod from being fused by the heat of a large current, it should be made of such a thickness as to allow a large stream of the fluid to pass.

## 866. NOVEL METHOD OF COOKING

 A SHOULDER OF MUTTON.-When Omai, a Chief of the Sandwich Islands, was staying at the house of Lord Sandwich, at Hinchinbrook, it was proposed that he should cook a shoulder of mutton in his own manner, at which he was quite delighted. Having dug a deep hole in the ground, he placed fuel at the bottom of it, and then covered it with clean pebbles; when properly heated he laid the mutton, neatly enveloped in leaves, at the top, and having closed the hole, walked constantly round it, very deliberately observing the sun. The meat was afterwards brought to table, was much commended, and all the company partook of it.867. LIQUID GLUE.-Dissolve an ounce and a quarter of shellac in one ounce by measure of Naphtha. Put the shellac, broken finely, into a wide-mouthed bottle, stir it with a wire until dissolved, and keep it corked. If thicker than cream, add more Naphtha. This glue will be found always ready for use. It is perfectly waterproof, and applicable to the purposes of the carpenter, joiner, and turner. It is used like common glue, the only difference being that the surfaces to be joined together must be quite dry.
868. REMEDY FOR MAD DOGS. To about six grains of calomel add thirty of powdered jalap, and ten of scammony ; make them into a pill with honey, or any other convenient vehicle, and give it to the dog immediately. This medium should be followed up by another pill, given at intervals of half an hour, made of pure camphor, dissolved to a suffleient consistency; a few drops of spirits of wine; a short time will decide the case; if the medicine takes effect, the jaws will be freed from that slimy, ropy excretion occasioned by the disease, and in its stead a free discharge of saliva will appear, rather inclined to froth like soap-suds.
869. GOOSEBERRY JAM FOR TARTS. -Put twelve pounds of the red hairy gooseberries, when ripe and gathered in dry weather, into a preserving-pan, with a pint of currant-juice, drawn as for jelly ; let them boil pretty quickly, and beat them with the spoon; when they begin to break put to them six pounds of pure white Lisbon sugar, and simmer slowly to a jam. It requires long boiling or it will not keep; but is an excellent and seasonable thing for tarts or puffs. Look at it in two or three days, and, if the syrup and fruit separate, the whole must be boiled longer. Be careful it does not burn to the bottom.
870. Another.-Gather your gooseberries (the clear white or green sort) when ripe; top and tail, and weigh them-a pound to three-quarters of a pound of fine sugar, and half-a-pint of water; boil and skim the sugar and water; then put the fruit, and boil gently till clear; then break and put into small pots.
871. TO PRESERVE ORANGES OR LEMONS IN JELLY.-Cut a hole in the stalk part, the size of a shilling, and with a small blunt knife scrape out the pulp qnite clear, without cutting the rind. Tie each separately in muslin and lay them in springwater two days, changing the water twice a-day; in the last, boil them until they become tender on a slow fire. Observe that there is enough at first to allow for wasting, as they must be covered to the last. To every pound of fruit weigh two pounds of double-refined sugar and one pint of water; boil the two latter together with the juice of the orange to a syrup, and clarify it, skim well, and let it stand to be cold; then boil the fruit in the syrup half-an-hour; if not clear, do this daily till they are done. Pare and core some green pippins, and boil in water till it tastes strong of them; do not break them, only gently press them with the back of a spoon ; strain the water through a jelly-bag till quite clear; then to every pint put a pound of double-refined sugar, the peel and juice of a lemon, and boil to a strong syrup. Drain off the syrup from the fruit, and, turning each orange with the hole upwards in the jar, pour the apple-jelly over it. The bits cut out must go through the same process with the fruit. Cover with brandypaper.
872. TO PICKLE CUCUMBERS.Take cucumbers as free as possible from spots, and the smallest that can be procured; lay them in strong salt and water for nine days, until they become quite yellow; pour the water off, and cover them with plenty of vine leaves. Set the water over the fire, and when it boils pour it over them, and set them upon the hearth to keep warm. When the water is almost cold, make it boil again, and pour it upon them; proceed thus till they are of a fine green, which they will be in four or five times; keep them well covered with vine leaves, with a cloth and dish over the top to retain the steam. When they are quite green, drain them through a hair-sieve ; and to every two quarts of vinegar put half an ounce of mace, ten or twelve cloves, an ounce of ginger, cut into slices, an ounce of black pepper, and a handful of salt. Boil them all together for five minutes, pour the liquor hot on to the cucumbers, and tie them down for use.
873. VINEGAR AND WATER A WHOLESOME BEVERAGE.-During the American war, when the stoppage of the supplies of molasses interfered with the distillation of rum, Dr. Rush, an American physician, recommended that, instead of rum, the labourers in harvest should mix a very small proportion of vinegar with the water they drank. This suggestion was adopted, and succeeded so well, that in many places vinegar still continues to be used when rum could easily be had. Severe labour or exercise excites a degree of fever, and the fever is increased by spirits or fermented liquor of any sort; but vinegar, at the same time that it prevents mischief, which drinking cold water induces during heat or perspiration, allays the fever; so that, in this instance, the labourers found themselves morerefreshed and less exhausted at night when vinegar was used instead of rum. The proportions are a tea-spoonful of vinegar to half a pint of water.
874. MILK PANS.-The best of all milk pans are those made of glass, and with a little care, pouring in small quantities at a time, they may be used safely even in a dairy when the milk is scalded. The next best are those made of earthenware, and into these boiling milk may be poured without danger of cracking.
875. BRITISH CHAMPAGNE.-Take gooseberries before they are ripe; crush them with a mallet in a wooden bowl, and to every gallon of fruit put a gallon of water ; let it stand two days, stirring it well at intervals; then squeeze the mixture through a hop-sieve, and to every gallon add three and a half pounds of loafsugar ; mix well in the tub, and leave it to stand one day; then add brandy, at the rate of one pint to every seven gallons; leave the cask open five or six weeks, removing the scum as it rises; then bung down, and let it stand for one year before it is bottled.
876. GREEN FRUITS FOR PRESERVING (OR PICKLING).-Take pippins, apricots, pears, plums, peaches, while green for the first, radish-pods or French beans, for the latter, and cucumbers for both processes; and put them, with vineleaves under and over, into a block-tin pre-serving-pan, with spring-water to cover them, and then the tin cover to exclude all air. Set it on the side of a fire, and when they begin to simmer take them off; pour off the water, and, if not green, put fresh leaves when cold, and repeat the same. Take them out carefully with a slice. They are to be peeled, and then done according to the receipts for the several modes.
877. TO PRESERVE STRAWBERRIES

WHOLE.-Take equal weights of the fruit and double-refined sugar; lay the former in a large dish, and sprinkle half the sugar in fine powder over; give a gentle shake to the dish, that the sugar may touch the under side of the fruit. Next day make a thin syrup with the remainder of the sugar, and instead of water, allow one pint of red-currant juice to every pound of strawberries; in this, simmer them until sufficiently jellied. Choose the largest scarlets, or others, when not dead ripe. In either of the above ways they eat well served in thin cream in glasses.
878. COFFEE BALLS THE FOOD OF THE GALLA.-It is not a matter of small curiosity to know what is the food of the Galla, that is so easy of carriage as to enable them to traverse immense deserts that they may, without warning, fall upon the towns and villages in the cultivated country of Abyssinia. This is nothing but coffee roasted till it can be pulverized, and
then mixed with butter to a consistence that will suffer it to be rolled up in balls and put in a leather bag. A ball of this composition, between the circumference of a shilling and half-a-crown-about the size of a billiard ball-keeps them, they, say in strength and spirits during a whole day's fatigue, better than a loaf of bread or a meal of meat.
879. IRRADIATION OF LIGHT.It is a curions fact that, if the same letters of the same size precisely, are painted on two boards, the one white on a black ground, and the other black on a white ground, the white letters will appear larger, and may be read at a greater distance than the black letters. This is owing to what is called the irradiation of light, and it depends on this that the impression made on the bottom of the eye by bright objects extends a littte wider than the actual portion of the organ, struck by the light and invading the space occupied by the darker objects, makes the brighter appear larger than they really are.
880. QUANTITY OF FOOD. - The proper quantity of food to be taken at a meal is best regulated by a person's own feelings; if we find that we dined too freely to-day, to-morrow we should reduce the quantity one-third, and if that is not sufficient, a further reduction of a third should be made, and so on until the proper standard is arrived at. To satisfy the appetite it is not necessary to eat to repletion, but at the conclusion of the meal, a person should always feel as though he could eat more.
881. ROTTEN WOOD FOR SWINE FATTENING.-Richard Peters, an American agriculturist, says that dry rotten wood should be constantly kept in the pen, that the hog, when confined for fattening, may eat at pleasure. Nature points out this absorbent as a remedy or prevention, and they will leave their food to devour rotten wood when they require it. He declared that he had not lost a hog for more than thirty years when he used it, but suffered by neglecting it.
882. TO REMOVE GREY HAIRS.Mix thoroughly a small quantity of pearl white (sub-nitrate of bismuth) with any common pomatum, and brush a little daily
into the hair.

## 883. PRESENTIMENTS.

"Well," said Charles Lyndon to his companion, "I shall bid you good night, and bon repos."
" Good night," returned Seabrook ; "and remember, if you are not the hero of an event within four and twenty hours, my faith in your prophetic mission is for ever destroyed."
"Agreed, most unconscionable heretic! And yet I scarcely expected this from you, who ought to be willing to bear unanswerable testimony to this gift which I possess, of second sight. Tell me, how often, when we have been walking along together, have I foretold that we should meet such-andsuch a person, and a few minutes afterwards we have run full tilt against the individual in question? And can you forget that the very first moment you set eyes upon Mrs. Seabrook I prognosticated that she would be your wife?"
"You did, indeed," answered Seabrook; " and so content am I to endorse this instance of your clairvoyance, that I can only hope you will be able to exercise your powers as satisfactorily in your own case as you have done in mine."
"Then, once for all, I declare myself a believer in this mysterious agency; and I feel persuaded that there are human beings whose nervous temperament is so ordered as to receive impressions to which the practical and prosaic mind is utterly a stranger."
"Taking yourself, I suppose, as an apt illustration of your theory," laughed Seabrook.
" Myself, if you will. Did I ever tell you," asked Lyndon, warming with his subject, "of some extraordinary dreams which I have occasionally?"
"A dreamer, too!" returned Seabrook, with a stage expression of admiration. "Why, my dear fellow, you possess sufficient capital to commence practice, instanter, as a first-class necromancer. I'll tell you how it's to be done. Hire a suite of apartments in a fashionable quarter of the town, envelope yourself in a poetical dressing-gown, hang out a board inscribed with cabalistic characters, which, not being understood, will be intensely admired; and, take my word for it, your fortune's made."
"Laugh as you please," said Charles, "but listen! I have frequently dreamt that I was in a room ordinarily furnished, and conversing with persons whom I never saw before, but whose features betray dis. tinctive marks, by which they are reco. nisable hereafter. I have heard these persons speak certain words, unimportant in themselves, but having reference to some particular subject. After this, months, nay, years, may have elapsed. When engaged in casual conversation with some person, words are spoken which I suddenly remember to have heard before; and then it successively occurs to me that the subject referred to, the features of the speaker, and the room in which I am, are identical with the vision seen in my dream. Is not this a strange and incomprehensible diversion of the mind ?"
"It is," said Seabrook; " and, to a stockjobber, or a detective officer, such a faculty would prove invaluable."
"I will cite one instance," continued Lyndon, " which will illustrate this phenomenon more vividly than a whole host of generalities. Five years ago I went to Manchester for the first time; the topography of the city, either personally or by report, was entirely unknown to me. Arrived at my destination I hired a cab, and told the driver, at hazard, the direction he was to take. As I rode along the street the shops gradually became familiar to me; but when I reached the river Irwell, the bridge that spans that muddy stream,-the blackened towers of the adjacent Abbey-church,-and the most noticeable of the confused mass of buildings that crowded around, I had certainly seen before; nay, more, persons of the same age and figure, dressed in clothes of the same fashion, and each walking with a similar characteristic gait, passed along the footway. But the strangest part of all remains to be told. I was driven on until I reached a certain street, in which I observed a certain house : I entered and hired lodgings there, and before the day was over I discovered that the landlady, the servant, the furniture, even the very tea-service and the cruetstand were no strangers to me. In a word, years before, when Manchester was farthest from my thoughts, I paid it a visit in my
dream."
"A pleasant and convenient mode of travelling truly !" remarked Seabrook; " however, the present is not the most favourable opportunity for a physiological investigation, and we will therefore defer it until our next meeting, and so au revoir."
"Good night," said Charles; " and remember that, 'by the pricking of my thumbs,' I prognosticate that somethingI know not what or where-will occur to me to-night of no ordinary character."
"So long as your good genius presides on the occasion I am content," answered Seabrook; and, warmly grasping each others' hands, the two friends parted.
The night was cold, and Charles Lyndon, buttoning his coat closely up, hurried onward. He had not proceeded many steps, however, before his attention was arrested by a lurid glare, which suddenly shot upwards, at a short distance westward. The dark and starless sky set off the isolated brightness more vividly, and every moment showed the circle gradually extending around the spot where the treacherous flame had first appeared. "A fire !" said Lyndon within himself. "I have heard a great deal of the awful grandeur of these things by night, and here is an opportunity of witnessing one." So saying, he followed the direction of the quivering patch of light.

Fires resemble human successes: we fancy them to be nearer than they really are, and we pursue them with eager precipitation, in the hope that every corner we turn will bring us to the object of our desire. It was thus that Charles Lyndon traversed many streets and squares ere he reached the scene of the conflagration.

In the meantime, the surrounding neighbourhood instinctively awoke to a sense of the existing danger. From the windows of many of the houses heads and shoulders, grotesquely draped, were thrust out, and criticisms on the progress of the flames, with speculations on the probable result, were delivered with the air of art-connoisseurs; while at other windows the blinds were timidly drawn on one side, and faces were pasted against the panes, pale and immovable.
In the street below, the pavement, which was but a few minutes before completely deserted, became suddenly alive with people.

It would almost appear that the event had been previously reckoned on, and that everybody had sat up, so as to be ready to start when the signal was given.

Men who possess the happy knack of being always present at scenes like these, scudded along the carriage-way, and struck their heels with rapture on the projecting kerb. Women, whose perverted reasoning connects all human catastrophes with gin, huddled each other joyously along; and even little children were not wanting, who dodged in and out of people's legs, or crept by the side of the railings, eager to be first on the spot, and yet dreading the thrashing which inevitably awaited their return home. It was, in truth, more like a holiday occasion than any other, and one might easily imagine that the crowd was hastening to a pantomime, or to witness that sight which is loved next best-an execution.

In the meantime, various characteristic remarks were bandied between the passersby relative to the fire.
" Where is it ?" demanded a burly fellow, of a man who was standing irresolutely at his door, at the same time scientifically striking a lucifer on the sole of his boot, for the purpose of lighting his pipe.
" Brickley, the builder, they seem to say," answered the man.
"Glad of it," returned the other, between three or four savage whiffs. "Cut down his mens' wages a month ago-it's a judgment on him ;" and with this comforting reflection the applauder of Providence walked on.
"Whose place, Polly ?" inquired a shrill voice, muffled up in a dirty, drab shawl.
"Chalkern, the tallyman," returned the lady so addressed, from a first floor window.
"Oh!" chuckled the dirty drab, "I wonder how much he gets out of it; and this pleasant and appropriate allusion caused the muffled head to roll about with ecstacy.
"It's Spicer, the grocer's," volunteered a man, addressing no one particularly.
"You don't say so ?" answered one of the crowd; "why he was burnt out three years ago!"
"In course he was," sneered the other, "and just at the same time-a week before Christmas-clever fellow that! he'll make his fortune the next time." And this ob.
vious witticism was received with shouts of laughter.

Thus were a hundred versions circulated as to where the fire was, and who was the sufferer, all of them, as a matter of course, being equally contradictory and incorrect.

At length the scene of the fire was reached; it was a long, straggling street, leading from a main thoroughfare, where trades, professions, and indepenrlent Nobodies divelt together in wonderful harmony, and formed a little community of their own.

The burning house was situated in about the centre of the street, and the flames that it emitted lighted up the whole line of buildings on either side, and one of those scenes presented itself which imagination could never conjure up, nor art hope to imitate.
Thousands of persons of both sexes, chiefly of the lower order, were pushing and hustling each other on the footpath and in the road; exclamations came reeking out of the crowd, charged with blasphemy and brutal oaths; the human carrion that always hover about a London fire were there; fellows with hang-dog expression, chiefly characterised by ferret eyes and flat noses, with stubly hair, short cropped, and gay belchers twisted about their bull necks. Burly giants in ankle jacks, with fustian trousers half way up their legs, scorning a distant view, coolly walked over people's feet to the front ranks; vixenish little women struggled into the midst of dense throngs, and then shrieked till they got out again; others, with boots about the thickness of brown paper, stood admiringly by the half hour together in pools of water. Jittle battles were got up here and there on the slightest pretext; and timid men, who wished themselves out of it, were solemnly warned to mind "where they were shoving to."
A body of police kept the crowd back, chiefly by the exercise of cajolery and threats; a few of the most unmanageable of the crowd, however, were sometimes roughly handled, and every now and then, above the din of the crowd, a sharp, hollow, sound might be heard, such as might be produced by a solid body coming into contact with a human skull. Sometimes a severe chase took place over the cleared
part of the road, in which, as often as not, the pursuer or the pursued, owing to the slippery state of the stones, was suddenly tripped up, and laid helplessly on his back, and this, of course, was glorious fun.

The public-house at the corner was doing an unusually brisk trade; through the halfopen door a crowd of Bacchanalians might be indistinctly seen in the midst of clouds of tobacco smoke, pouring fiery compounds down their iron throats, and becoming more and more quarrelsome and noisy every minute. The pewter-pots flashed and glis. tened, the glasses and spoons gingled merrily on the counter, the publican waxed facetious, and the barmaid wore her most fascinating smiles. What a jolly event was this same fire!
At every side, all up and down and along the fronts of the houses, were studded with heads of men and women, the faces of which, by the aid of the strong light, wore an exaggerated expression, and appeared to be mocking and grinning at each other. In a word, so strongly did the whole neighbourhood realise Pandemonium that you instinctively wondered if there was a fire there every night, and if not, what sort of place it looked like under ordinary aspects.

During all this, the work of devastation was hurrying on in the burning house. The fire seemed to be chiefly in the back portion of the premises, from which there sprung up at intervals savage columns of yellow flame, accompanied by showers of sparks and crimson flakes, that floated afar off through the air, and fell no one knew where. Sometimes there was a momentary gloom, and smoke alone arose, which led kind-natured people to hope that the fire was "got under;" but these surmises were soon dispelled, for after every such lull the flames came rushing forth with redoubled fury, as though there had been a fierce and silent struggle within, and the monster had obtained the mastery.

It was curious to note the air of calmness and self-possession which the front part of the house wore as contrasted with the other. The bead-baskets that hung suspended between the curtains of the parlour windows did not betray a single unwonted vibration; and the three marble doves drinking out of a marble fount, which stood on a small table in the draw-
ing room, remained unruffled and undisturbed through it all.

In the meantime the fire-engines arrived on the spot in quick succession, and reckless of life or limb, with deafening whoop and shout, dashed in amongst the crowd. Then, sturdy-built men, in dusky uniform, with black helments on their heads, and small hatchets at their girdle, sprang down; with the celerity of lightning, detached the panting horses, fitted the intricate machinery, and actively commenced operations.

A hundred brawny arms, at least, were bared; the handles of the engine were seized on, and dashed with ceaseless violence from side to side, and a chorus of hoarse voices marked the time to the tune of some popular air.
And yet how feeble and puerile all these frantic efforts appeared! How puny and powerless the narrow stream of water that was uiged on the burning mass-how supine and cold-blooded the bearing of the man who directed the hose! One could not help mentally laughing these things to scorn, and wishing that the stream were a hundred times more powerful, a thousand times more swift, and that your own hand might be permitted to hurl this resistless torrent on the tyrant, to choke and strangle him as he rose.

Then the flames, flakes, sparks and smoke belched forth more hideously than ever, the sky glowed more and more brightly, and the very air became heated and suffocating.

And the terrified neighbours came rushing from their houses the picture of helpless despair; some implored the firemen, in the most abject terms, to spare their homes ; others ran within doors again, and flung from windows the very things they wished to spare; others cautiously brought out some treasured article, and thoughtlessly left it where it was certain to be stolen; and all of them moving about on some purposeless errand, stared vacantly at each other, and babbled like children.

But in the midst of this bewildering scene, an event occurred which absorbed every thought, and charmed every eye.

Suddenly, and, as if by supernatural agency, one of the upper windows of the house was thrown up, and a female figure became visible. Her figure was enveloped in a counterpane, her hair hang dishevelled
about her shoulders, tears were plainly seen streaming down her cheeks, and her features wore an indescribable expression of terror, which those who saw might never forget.

At this apparition, a shriek of consternation and pity arose from the crowd. This was succeeded by confused shouts, conveying directions for her escape, which it would have been death to follow. Some voices shouted, "throw yourself down," others vociferated, "stay where you are;" more than one suggested that she should "hang on by the window-sill and drop into the crowd." To all of these contradictory counsels, however, she appeared to lend a deaf ear.

With her hands clasped appealingly towards the crowd, and her body rocking to and fro, she still stood at the open window. At one time she turned back into the room and was lost to sight for a few moments, so that every one concluded that she had attempted her escape and had perished ; but shortly she returned to the window, wringing her hands, with her pale face grown still paler, and her frame more agitated than before. Once a sudden idea seemed to have flashed across her brain, and she measured with her eye the distance from the window to the ground; this was sucseeded by a shake of the head expressing the hopelessness of the attempt.

Fire-escapes were unknown at that period, and no ladder was at hand. It was said that the stairs were in one blaze; and what man could be found hardy enough to risk his life in such a forlorn hope? Never might the fate of a human being have been calculated upon with such certainty; never did a sudden and violent death appear so inevitable.
It was just at this juncture, which seemed to preclude the possibility of any assistance, that, at a particular spot, the crowd was irresistibly driven on either side, and every eye was turned in that direction to ascertain the cause.

This was soon ascertained : the figure of a man was seen to rush towards the doorway; he stood an instant on the threshold, and extended his hands toward heaven, as though invoking divine aid, and then bounding forward, he was lost to view.
It would be impossible to describe the
electrical effect which this movement produced upon the crowd; it was hailed, not with cries of terror or astonishment, but with a low deep murmur, that gradually surged upon the air, like the dirge for a dying man.
The hapless woman, hearing this wail, and imagining that it portended the approach of some danger which she could not see, appeared suddenly bent on attempting the leap which she had previously regarded as hopeless. The crowd could distinctly see the movement, and understood its motive; she stepped back two or three paces, and then came forward with a sudden spring; but, at that critical moment, an arm was thrown round her waist, and she was snatched away from the window.

From that instant a stillness more terrible than death took possession of the crowd ; the most callous heart beat for a time with fear and apprehension, and the most brutal natures were tamed into awe: every eye was rivetted on the doorway, and every mouth was partly open, ready charged with the shout of joy that should hail the successful issue of this courageous venture.

It was, indeed, a fearful moment of suspense; it was an awful thought which haunted every brain, that between the window above and the door below, two human beings were at that moment fighting their way, step by step, with a deadly and unsparing foe.

To render the scene more distressing and heart-rending, a catastrophe occurred at this interval which had momentarily been expected. For while the crowd was thus busied with its hopes and fears, one long loud crash was heard, as though every joist and rafter in the whole building had given way, and had become a mass of ruins.
At this catastrophe the pent-up agony of the crowd burst forth, for all was deemed over. But when the smoke and dust began to clear away, a loud long shout of joy was sent up from every one present, when they beheld a pale, bloodless face issuing from the doorway, and saw a staggering form, bearing towards them in his arms the body of a woman, living, but insensible.

Presentiments sometimes meet their fulfilment, for the hero of that scene was no other than Charles Lyndon.

The burst of admiration with which
this deed was applauded may be readily imagined. What a fine, noble fellow, he was regarded as by the men! how the women ran after him with tears in their eyes, and fervently bid God bless him! When Lyndon had safely deposited his fair burden with a neighbour, he hurried homewards, and, as his fevered brow pressed the pillow, he smiled to think what the asto. nishment of his friend Seabrook would be when he read an account of what he had done that night.

## 884. THE LILY.

How withered, perished seems the form Of yon obscure unsightly root!
Yet from the blight of wintry storm It hides secure the precious fruit.
The careless eye can find no grace, No beauty in the scaly folds,
Nor see within the dark embrace What latent loveliness it holds.
Yet in that bulb, those sapless scales
The lily wraps her silver vest The lily wraps her silver vest,
Till vernal suns and vernal gales Shall kiss once more her fragrant breast.
Yes, hide beneath the mouldering heap, The undelighting, slighted thing; There in the cold earth buried deepIn silence let it wait the spring. Oh, many a stormy night shall close In gloom upon the barren earth, While still in undisturbed repose, Uninjured lies the future birth. And Ignorance, with sceptic eye, Hope's patient smile shall wondering view, Or mock her fond credulity, As her soft tears the spot bedew. Sweet smile of Hope ! delicious tear ! The sun, the shower, indeed shall comeThe promised verdant shoot appear,
And Nature bid her blossoms bloon And Nature bid her blossoms bloom. And thou, O virgin Queen of Spring! Shalt from thy dark and lowly bed, Bursting thy green sheaths' silken string, Unveil thy charms and perfume shed. Unfold thy robes of purest white, And nsulied from their darksome frame, And thy soft petals' silvery light. In the mild breeze unfettered wane. So Faith shall seek the lowly dust, Where humble Sorrow loves to lie, And bid her thus her hopes intrust, And watch with patient cheerful eye. And bear the long cold wintry night, And bear her own degraded doom, And wait till Heaven's reviving lightEternal spring-shall burst the gloom.

## 885. CURE FOR CHAFING.-Chafing

 is instantly relieved by the slime of a slug: put the slug on the sore place, and the part once slimed the slug may be let go.886. DIRECTIONS HOW TO CHOOSE PORK.-Pork, if it is measley, is very dangerous to eat; it may be easily seen, the fat being full of little kernels; if it is young, the lean will break if pinched, and the skin will dent by nipping it with the fingers; the fat will be soft and pulpy, like lard; if the rind is thick, rough, and cannot be nipped with the fingers, it is old; if the flesh is cool and smooth, it is fresh; if it is clammy, it is tainted; it will be worse at the knuckle than at any other part.
887. DIFFERENT PIECES OR JOINTS OF PORK.-The spring and the fore-loin, the spare-rib and griskin, are cut from the fore-quarter; the spring is generally salted and boiled, and the fore-loin roasted; but some like them both roasted.
888. Hind quarter consists only of the leg and the hind-loin.
889. The leg is either boiled or roasted, and the hind-loin is generally roasted.
890. The head, tongue, ear, and feet.
891. The entrails are called the haslet, which contains the liver, crow, sweetbread, kidneys, and skirts. There are, besides the haslet, the chitterlings and guts, which, when cleaned, make sausages, and white and black puddings.
892. THE BACON HOG is cut very different to make hams, bacon, and pickled pork, spare-ribs, chine, and griskins. Hog's lard is the fat of the bacon hog. Many are fond of the liver fried with bacon.
893. TO CHOOSE BACON.-The fat will feel oily, and look white, and the lean of a good colour, and will stick close to the bone, if it is good; but if there are yellow streaks in the lean, it is or will be rusty very soon. If the rind is thin, it is young; but, on the contrary, if it is thick it is old.
894. TO CHOOSE HAM.-Hams with short shanks are best. Put a knife under the bone, if it comes out clean and smells well, it is good; but if it is daubed and smeared, and has a disagreeable smell, it is bad.
895. TO CHOOSE BRAWN.-If old, the rind is thick and hard; if moderate, it is young; if the rind and fat are very tender, it is barrow or sow brawn.
896. TO BOIL PORK.-Pork should be very well boiled; a leg of pork of six pounds will take about two hours; the hand
must be boiled till very tender. Serve it with pease-pudding, savoys, or any green.
897. ROAST-PORK.-It should be well done; a leg of twelve pounds will take three hours. Stuff the knuckle with chopped sage and onion, pepper and salt; serve it with gravy in the dish. Very young pork may be skinned and dressed in quar. ters. For sauce-potatoes and apple-sauce.
898. TO STUFF A CHINE OF PORK.

- Take a chine of pork that has hung four or five days, make some holes in the lean, and stuff it with a little of the fat leaf, chopped very small, some parsley, thyme, a little sage and eschalot, cut very fine, seasoned with pepper, salt, and nutmeg; it must be stuffed pretty thick; have some good gravy in the dish. For sauce-applesauce and potatoes.

899. PORK CHOPS,-Take a loin of pork and divide it into chops, strew some parsley and thyme, cut small, some pepper, salt, and grated bread over them; boil them a fine brown; have ready some good gravy, a spoonful of ready-made mustard, two eschalots shred small; boil these together over the fire, thickened with a piece of butter rolled in flour, and a little vinegar, if agreeable. Put the chops into a hot dish, and pour the sauce over them.
900. TO PICKLE PORK.-Rub each piece with common salt, lay them on a slanting board, that the brine may run off; the next day rub each piece with pounded saltpetre ; dry some salt, and put a layer at the bottom of the pan, then a layer of pork, and so on till the pan is full; fill all the hollow places with salt, and lay salt on the top ; cover the pan. Half a pound of saltpetre is enough for a middle-sized pig.
901. TO CURE A HAM.-Rub a ham with a quarter of a pound of saltpetre; let it lie twenty-four hours; boil one quart of strong old ale with half a pound of bay
salt, half a pound salt, half a pound of brown sugar, a pound and a half of common salt; pour this on the ham boiling hot, rub and turn it every day for a fortnight and baste it with the liquor when there is opportunity.
902. THE NEW ENGLAND WAY. For two hams, take two ounces of salt prunella, beat it fine, rub it well in, and let them lie twenty-four hours; then take half a pound of bay salt, a quarter of a pound of brown salt, a quarter of a pound of common
salt, ana one ounce of saltpetre, all beat
fine, and a half a pound of the coarsest sugar; rub all these well in, and let them lie two or three days; then take white common salt, and make a pretty strong brine, with about two gallons of water, and half a pound of brown sugar ; boil it well, and skim it when cold; then put in the hams and turn them every two or three days in the pickle for three weeks; then hang about a week on the side in the kitchen chimney, then take them down; keep them dry in a box, with bran covered over them ; they may be eat in a month, or will keep very well one year.
903. TO BOIL HAMS.-Steep it all night in soft water; a large one should simmer three hours, and boil gently two; a small one should simmer two hours and boil about one and a-half; pull off the skin, rub it over with yolk of egg; strew on bread crumbs, set it before the fire till of a nice light brown.
904. A HAM ROASTED.-Take off the skin, and steep it three hours in warm water; then take it out and pour over it a bottle of Madeira, and let it soak all night. Before it is spitted, put a paste all over it as for venison; pour what is left of the Madeira into the dripping pan, with some more if it is a large ham. and baste it with the wine while it is roasting. It must at first be laid at a distance from the fire, which must be a very good one; when it is half done put it nearer, and when near enough take off the paste, baste it well with the wine, and strew it over with bread crumbs or shred parsley; stir the fire and make it of a fine light brown.
905. TO CURE BACON.-Rub the flitches with common salt exceedingly well; let them lie so that the brine can run from them; in about a week put them into a tub for the purpose, rubbing off all the salt; rub the flitches with one pound of saltpetre, pounded ; the next day rub them with salt dry and hot; let them lie a week, often rubbing them; then turn them; add more hot salt; let them lie three weeks or a month in all, rubbing them well; then dry them. The hog may be either scalded or singed, but singed is the best.
906. AN EXCELLENT WAY TO DRESS A PIG'S HEAD.-Boil a head out of the pickle (tongue pickle) till it will
bone; take the skin off the whole, chop the meat quick, whilst it is hot ; season it with black and Jamaica pepper, nutmeg, and a little salt, if necessary; press it into a pot; the skin put top and bottom; put on a weight; turn it out when cold; put it into a pickle made with the liquor it was boiled in, vinegar, and salt, if necessary; boil and skim it ; it must stand to be cold.
907. PORK SAUSAGES.-Two pounds of lean pork, three pounds of chine fat, free from skin, some sage leaves chopped, pounded cloves, pepper, and salt ; beat it fine, and either press it into pots and roll it when it is used, or put it into skins.
908. GERMAN SAUSAGES.-Boil a belly-piece of pork till tender; cut it into dice; put to it some hog's blood, some rice flour, or other flour, to thicken it; season it well with pepper, what salt is necessary, and pounded cloves; put this into the great skins, which fill about half full; boil them; when enough they will swim; the pork is best to be out of the pickle for hours.
909. TO MAKE LARD.- Cut the leaf to pieces ; cut it into a jar ; set it into a pot of boiling water till the fat melts, and pour it clear off.
910. SPANISH SAUSAGES.-Parboil a gammon of bacon, or part of a lean ham, and mince it with an equal quantity of fine lard, and some boiled garlic, sage, thyme, pepper, nutmeg, and salt; mix them with the yolks of eggs, and as much wine as will make it pretty thick; fill them in guts as big as four common sausages; hang them three or four days in a chimney; eat them with oil and vinegar, or boil them.

## 911. THINGS IN SEASON IN SEP-

 TEMBER. - Meat.-Lamb, Beef, Mutton, Veal, Buck Venison.Poultry.-Geese,Turkies, Pullets, Fowls, Chickens, Ducks, Pigeons, Rabbits, Teal, Larks, Hares, Pheasants, Partridges.
FisH.- Cod, Haddocks, Salmon, Carp, Tench, Plaice, Flounders, Thornback, Skate, Soles, Smelts, Pike, Oysters, Lobsters.

Vegetables. - Peas, Beans, Kidney Beans, Cauliflower, Cabbages, Sprouts, Carrots, Turnips, Parsnips, Potatoes, Artichokes, Cucumbers, Mushrooms, Eschalots, Onions, Leeks, Garlic, Endive, Celery, Parsley, Lettuce, all sorts of Salad, all sorts of Herbs,
Radishes.

[^8]Apples, Grapes, Figs, Walnuts, Filberts, Hazle Nuts, Medlar, Quinces, Cherries, Melons.

## 912. STRENGTHENING OF GUMS

 AND TEETH.-Use a small piece of alum, about half the size of a hazel nut, twice a week; let it dissolve in the mouth, and then eject the fluid; this will fortify the teeth, and render the gums hard and impervious to disease.913. THE STRUGGLES OF GE-NIUS.-Galileo, we are told, was greeted with the epithets " liar," "plagiarist," " heretic,", "impostor ;" Harvey rewarded for his great discovery with general ridicule and abuse, and a great diminution of his practice; Sydenham stigmatised as a quack and a murderer ; Ambrose Paré, who first substituted the ligature for boiling pitch in amputation, hooted and howled down by the faculty of physic ; the prescribing antimony made penal by an act of the French Parliament, passed on the instance of a French College of medicine; Jesuits' bark promptly rejected by Protestant England as a phase of the mystery of iniquity ; Dr. Groenvelt committed to Newgate for discovering the curative powers of cantharides in dropsy; inoculation denounced by the medical faculty as a murderous folly by the theological, as an impious defiance of Providence ; vaccination ridiculed; the Newtonian philosophy scowled upon; the project of lighting our cities by gas pronounced by Woollaston to be "insane;" and Atlantic steam navigation demonstrated by the enlighted Dr. Lardner to be impossible. This invariable resistance to innovation is not altogether unserviceable, although in particular instances, we feel it to be vexatious. Were every hasty speculation of genius to meet with ready and indiscriminate encouragement, the door would be opened for all kinds of imposture. It was the advice of a wise man, that " the novelty, suspect." We may feel quite sure, that if the discovery have strength and vitality in itself, it will triumph over all opposition in time. The stalk from the healthy seed works its way through the earth that encumbers it, till it spreads into a goodly tree.

## 914. SALMON FISHING - CASTING THE FLY.

Casting the fly is a knack, and cannot well be taught but by experience. The spring of the rod should do the chief work, and not the labour of your arm. To effect this you should lay the stress as near your
hand as possible, and make the hand as possible, and make the wood undulate from that point, which is done by keeping your elbow in advance, and doing something with your wrist, which, as Mr. Penn says, is not very easy to explain ; thus the exertion should be chiefly from the elbow and wrist, and not from the shoulder. You should throw clear beyond the spot where the salmon lie, so that they may not see the fly light upon the water: then you should bring your fly round the stream, describing the segment of a circle, and taking one step in advance at every throw. It is customary to give short jerks with the fly as you bring it round, something in the manner of minnow fishing, but in a more gentle and easy way ; and this manner is, I think, the most seducing you can adopt, for it sets the wings in a state of alternate expansion and contraction that is extremely captivating.
Salmon will often take your fly on one side of the river when they will not touch it on the other. In high water, the channel side, as a general rule, is the best, and at the cheek of the current; and you should not be in a hurry to pull your fly into the more bare and still parts of the channel, where the fish will come more cautiously and lazily. In low water, it is best to throw over the channel from the rocky side, drawing at first rather quickly, that your fish may take your fly into the current, which is material. In very low water, indeed, when the fish may be said to give over rising, you may try your fortune in the rapids, by hanging your fly on them-indeed you should always let your fly dwell in this sort of water, or the fish will either lose sight of it, or not choose to follow when you may
wish him.
915. TO PRESERVE PLANTS FROM FROST.-Before the plant has been exposed to the sun, or thawed after a night's frost, sprinkle it well with spring water, in which sal-ammoniac or common salt has been infused.

## 916. THE ART OF EDUCATION.

It needs but a glance at the daily life of an infant to show that the whole of the knowledge of things which is gained before the acquirement of speech is self-gainedthat the properties of hardness and weight associated with certain visual appearances, the possession of certain forms and colours by particular persons, the production of special sounds by animals of special aspects, are phenomena which it observes for itself. In manhood, too, when there are no longer teachers at hand, the observations and inferences required for daily guidance must be made unhelped, and success in life depends upon the accu:acy and completeness with which they are made. Is it probable, then, that, while the process exhibited to us in the evolution of humanity at large, is repeated alike by the infant and the man, a reverse process must be followed, during the period between infancy and manhood, and that too even in so simple a thing as learning the qualities and structure of objects? Is it not obvious, on the contrary, that one method must be pursued throughout? and is not nature perpetually thrusting this method upon us, if we had but the wit to see it, and the humility to adopt it? What can be more manifest than the desire of children for intellectual sympathy? Mark how the infant, sitting on your knee, thrusts into your face the toy he holds, that you may look at it. See when it makes a creak with its wet finger upon the table, how it turns and looks at you, thus saying as clearly as it can, "Hear this new sound." Watch how the elder children come into the room, exclaiming-"Mamma! see what a curious thing!" "Mamma! look at this !" "Mamma, look at that," and would continue the habit, did not the unwise mamma tell them not to tease her. Observe how, when out with the nursemaid, each little one runs up to her with the new flower it has gathered, to show her how pretty it is, and to get her also to say it is pretty. Listen to the eager volubility with which every urchin describes any novelty he has been to see if he can only find some one who will attend with any interest. Is it not clear that we must conform our course to these intellectual instincts - that we must systematise the natural process-that we must
listen to all the child has to tell us about any object-must induce it to say everything it can about such object-must occasionally draw its attention to facts it has not yet observed, with the view of leading it to notice them itself whenever they recur, and must go on, by and by, to indicate or supply new series of things, for a like exhaustive examination? See the way in which, on this method, the intelligent mother conducts her lessons. Step by step she familiarises her little boy, with the names of the simpler properties, hardness, softness, colour, taste, size, shape \&c.., in doing which she finds him eagerly help by bringing this to show her that it is red, and the other to make her feel that it is hard, as fast as she gives him words for these properties. Each additional property, as she draws his attention to it in some fresh thing which he brings her, she takes care to mention in connection with those which he already knows, so that by the natural tendency to imitate, he may get into the habit of repeating them one after the other. Gradually as there occur cases in which he omits to name one or more of the properties he has become acquainted with, she introduces the practice of asking him whether there is not something more that he can tell her about the thing he has got. Probably he does not understand, and, letting him puzzle himself until she tells him, perhaps laughing at him a little for his failure. A few recurrences of this, and he perceives what is to be done. When next she says she knows something more about the object than he has told her, his pride is roused; he looks at it intently, he thinks over all that he has heard, and the problem being easy, presently finds it out. He is full of glee at his success, and she sympathises with him. In common with every child he exults in the discovery of his powers.

He wishes for more victories, and he goes in quest of more things about which to tell her. As his faculties unfold, she adds quality after quality to his list, progressing from hardness and softness to roughness and smoothness; from colour to polish, from simple bodies to composite ones; thus constantly complicating the problem as he gains competence-constantly taxing his attention and memory to a greater extent-
constantly maintaining his interest by supplying him with new impressions such as his mind can assimilate, and constantly gratifying him by new conquests over such difficulties as he can master. In doing this she is but manifestly following out that spontaneous processthat was goingonthat was going on during a still earlier period simply aiding self-evolution, and is aiding it in the mode suggested to her by the boy's instinctive behaviour to her. Manifestly, too, the course she is pursuing is the one best calculated to develop that faculty of exhaustive observation which it is the professed aim of these lessons to produce. To tell a child this, and to show it that, is not to teach it how to observe, but to make it a mere recipient of another's observations - a proceeding which tends to weaken rather than strengthen its powers of self-restric. tion, which deprives it of the pleasure resulting from successful authority, and which thus generates indifference and even disgust. On the other hand, to pursue the course above described is simply to guide the intellect to its appropriate food, and to cultivate the mind from the very beginning to that practice of self-assistance which in after life it must follow.

## 917. MEANING OF THE WORD

 CHOCOLATE.-The name chocolate is an Indian name, and is compounded from atte, or atle, which, in the Mexican language, signifies water, and from the sound which the water, wherein the chocolate is put, makes, as choco, choco, choco, when it is stirred in a cup by an instrument called a molinet.918. HUMAN PULSATION.-An in. genious author asserts, that the length of a man's life may be estimated by the number of pulsations he has strength to perform. Thus, allowing seventy years for the com. mon age of man, and sixty pulses in a minute for the usual measure of pulses in a temperate person, the number of pulsations in his whole life would amount to $2,207,520,000$; but if, by intemperance or other causes, he forces his blood perma. nently into a more rapid movement, so as to give seventy-five pulses to the minute, the same number of pulses would be completed in fifty-six years; consequently shortening his life by fourteen years.
919. TO LIZZY.

Dear Lizzv ! tho' by stern decree We for a time are parted, And I am driven forth from thee, My Eden!-broken hearted. Care cannot cancel past delights, Nor Art enkindle others
Like those when language breath'd in sighs And when our cheeks, our lips, our eyes,
Our thoughts, were one another's. Our thoughts, were one another's.
My darling girl! can you forget The moment of our greeting, When all unconsciously we met ? For Heaven design'd the meeting. And I was weary of the world, And you were worn with sorrow,
When tremblingly npou my arm When tremblingly upou my arm You leant, and own"d a new-found charm,
And parting said-"To-morrow"" And parting said-"To-morrow."
And how as day succeeding day We murmur low strong and stronger We murmur'd at the flight of May, And wished the twilight longer! And oft we knew not that 'twas night, Lizzy! 'twas then L learnt to chase
The shades of sadness from your face And left it bright and beaming.
In vision'd guise thy form I see,
Thy looks and smiles endearing,
And tender words oft whisper'd me Still linger in my hearing.
That gentle hand, whose lightest touch Thrill'd me with its appealing,
I grasp once more. It throbs in mine,
And yet imparts that warmth of thine, With all its wonted feeling.
Oh, chide me not for trusting now (That we are doom'd to sever) The troth you pledg'd with holy vow Shall be as holy ever.
Tho' many hasten to thy side, And suitors throng about thee, Gazing with rapture on thy face, And noting each alluring grace, I cannot-will not-doubt thee.
Tho' I must drag Time's galling chain, Till Fate shall be requited, And nights of anguish, days of pain, Still leave us ununited. Through every change of place and scene, Unmov'd as heaven above thee, My pilgrim heart from falt'ring free, Seeking no other shrine but thee, As now it loves-shall love thee.

## 920. TOBACCO A PANACEA FOR HORSES. - William Ellis, once a farmer at

 Little Gaddesden, who, in 1760, published "Every Farmer his own Farrier," says, upon his own experience, that "half-anounce of tobacco at a time given among a horse's corn, and continued for a week, will prevent worms, cure greasy heels, and create a fine coat."
## 921. HOOPING-COUGH.

Pertussis, or hooping-cough, is a disease of a purely spasmodic nature, to which infants and children are subject at any age between birth and puberty, though the disease may be said to be particularly con. fined to the first ten years of life.
922. It has long been a subject of medical controversy whether hooping-cough is a contagious disease, or simply an aggravated form of spasmodic cough. That hoopingcough is contagious there can be no doubt; but it is purely a contagion of imitation, caught by the ear, as the fits of epilepsy and St. Vitus's dance are caught by the eye, by one child from another. It consequently becomes the duty of parents to keep all children who have not yet had the complaint completely apart from the sound of a patient affected with it.
923 . As yawning, sneezing, hiccough, orany involuntary spasmodic action, can always be suppressed or interrupted by a sudden fright or ejaculation, so, when a nurse has reason to apprehend the coming on of hoopingcough, and before the distinctive ingulph or whoop has been added, it is advisable to break the fit of coughing as early as possible, by a sudden noise or some attractive motion of the hand or body; which, by engaging the patient's mind, or alarming for a moment its fears, may prevent the cough reaching the acme of exhaustion, when the whoop is certain to follow.
924. Symptoms.-Hooping cough comes on with a slight oppression of breathing, thirst, quick pulse, hoarseness, cough, and the usual symptoms of catarrh, or cold. This state may exist for one, two, or three weeks before the peculiar feature of the disease, the whoop, takes place.
925. Either before or about that time the violent expirations, which are called coughing, become gradually more rapid and forcible; and, after a succession of these convulsive expirations, a sudden and full in. spiration is made, in which the air, by rushing with extra velocity through the glottis, or upper end of the windpipe, produces that peculiar sound or whoop which gives name to the disease. When once the hoop, or whoop, has been sounded it acts as a stimulant to renew the convulsion of coughing, the fit being again terminated by
another whooping inspiration; and so on, in a succession of fits, till a quantity of mucous or phlegm, or the contents of the stomach are thrown up, when exhaustion, or the relief afforded by vomiting, terminates the paroxysm; and the patient either craves for food, and appears restored to health, or if the attack has been protracted, exhibits fatigue, hurried respiration, and great debility.
926. Unlike ordinary cough, which may come on at any time, hooping-cough attacks always in paroxysms, and at regular intervals of longer or shorter duration. The longer the interval between each fit of coughing, and the freer the expectoration or vomiting after each, the more favourable will be the opinion formed of the disease; this prognosis being still more favourable should the attack be attended by a moderate discharge of blood from the nose.
927. The unfavourable indications are the frequency and duration of each fit of coughing, the smallness or total absence of expectoration, and vomiting; the attack coming on in children under two years of age, and occurring in patients of consumptive parents, and when the paroxysms are followed by great debility, coma, or congestion of the brain.
928. Hooping cough is distinguished from all other diseases by the convulsive nature of the cough, and the hooping inspiration, and by each paroxysm terminating in expectoration or vomiting; and from croup, by the distinctive sound of that disease, the freedom of breathing, and by the temporary restoration to health after each attack.
929. Treatment.-Though so formidable a disease, hooping-cough is remarkably easy of treatment, requiring little or no variety of means to effect its cure. The great aim is to keep up a constant state of nausea, so as to facilitate a free expectoration or vomiting, and for this purpose the remedies are simple and their application easy. In the first instance, give the child an emetic of antimonial and ipecacuanha wines in the dose and manner ordered at paragı aph 728.
930. This is to be followed by the pectoral mixture below :-Take of syrup of squills, half an ounce; antimonial wine, one ounce; laudanum, fifteen drops; water, an
ounce ard a half. Mix. And to a child of one year, give half a teaspoonful every four hours. From two to three years, a teaspoonful; from tirree to six years, two teaspoonsful; and from six to ten years, a dessert spoonful, every four or five hours.
931. When the lungs are oppressed, and the breathing difficult or hard, use the warm bath 493 , and if necessary, from the urgency of the symptoms, apply one or two leeches, according to age, over the breastbone, where the bleeding can always be suppressed with ease by pressure, should the bites be troublesome to close. When the cough remains obstinate, a small blister, from the size of a shilling to a crown-piece, is to be applied to the lower part of the throat, and the following powders either substituted for the pectoral mixture, or al. ternated with it:-
932. Take of powdered sugar, half a drachm; gray powder, twenty grains; tartar emetic, two grains. Mix thoroughly, and divide into twelve powders for a child from one to two years, giving one powder to the first twice, and the latter three times, a day. Divide into nine powders for a child from two to four years, giving a powder three times a day. Divide into six powders for all ages above four years, and give a powder twice or thrice a day.
933. Through the whole time of the disease the bowels are to be kept open, by administering either the senna mixture, No. 492, or the aperient powders, 494.
934. Where the after debility is great, it will be necessary to give the steel mixture, 607 and 608. The diet should be light and easy of digestion, such as farinaceous food, custards, \&c. As soon as the disease moderates, change of air will be found highly beneficial, attended, if in summer time, with cold sea bathing and liberal exercise : avoiding, as much as possible, all exposure to a humid or irritating atmosphere, and allowing the child when first taken out to breathe through the medium of a single or
double veil.

## 935. CROUP.

Croup is by far the most formidable and fatal of all the diseases to which infancy and childhood are liable. It is purely an inflammatory affection, attacking that por-
tion of the mucous membrane lining the windpipe and air passages, or bronchial tubes, and from the effect of which a false-or as it is called an adventitious-membrane is formed along the windpipe, resembling the finger of a glove dropped down the passage, and terminating the life of the patient by suffocation; for as no air can, in consequence of such an obstruction, enter the lungs, the result must be the death of the child.
936. There is a certain class of children who are peculiarly predisposed to this disease, such as fat, flabby children, with short necks, and who make a constant wheezing noise in their ordinary respiration; children of dull, gross, and full habit of body, and those who are the offspring of asthmatical or consumptive parents. Infants or children presenting these characteristics are more liable to attacks of croup than others of a spare frame and more vivacious temperament.
937. Croup is always sudden in its attack and rapid in its course, usually proving fatal within three days. It often commences in the night, and generally attacks children between the age of three and ten years. Mothers should consequently be on their guard who have children predisposed to the disease, and avail themselves of the remedies prescribed the moment the first symptom shows itself.
938. Symptoms.-Croup is preceded by languor and restlessness, hoarseness, wheezing, short dry cough, with occasional rattling in the throat during sleep, the child often plucking at its throat with the fingers; difficulty of breathing, which in a few hours becomes distressing, with anxious face, and the veins of the neek becoming swollen and knotted : the voice, in speaking or coughing, acquiring a sharp, crowing or croupy sound, while the inspirations have a harsh metallic intonation. After a few hours, the cough loses its dry character, and a tenacious ropy mucous is discharged, or hangs about the mouth, mixed with patches of a whitish film, the efforts to expel which are attended with suffocating fits of coughing.
939. Treatment.-Place the child immediately in a hot bath (493). On removing the patient from the water give an emetic, as prescribed at 728; when the vomiting has subsided, place a long blister down the front of the throat, on the wind-
pipe, and administer one of the following powders every twenty minutes, to a child from three to six years:-
940. Take of calomel, 12 grains; tartar emetic, 2 grains; sugar, 30 grains. Mix thoroughly, and divide into twelve powders. For a child from six to twelve years, divide the same quantity into six powders, and give one powder every halfhour. Should the symptoms, after a few hours, still continue urgent and unabated, apply a leech on each side of the throat, and put hot mustard poultices to the feet and thighs, keeping them on for about eight minutes; and in extreme cases, place a mustard-plaster on the spine and chest, and rub mercurial ointment into the arm-pits, thighs, and the angle of the jaws and throat.
941. Such is the routine treatment of croup in its worst and most dangerous form; but in the milder and more usual attack the following succession of remedies will be found sufficient:-The hot bath and emetic; mustard-plaster round the throat for five minutes; the powders, a second emetic after six hours, if necessary, and blister over the windpipe, and if demanded, one or two leeches on the throat, repeating, if requisite, the hot bath.
942. The punctual employment of the powders must on no account be interrupted till the force of the disease is conquered, when they are to be given at longer intervals.
943. When convalescent, small doses of the senna mixture, or an aperient powder (see paragraphs 492 and 494), every morning, for a few times, must be given, to carry off the mercury in the system, and the collected mucous from the stomach and bowels.
944. The diet must be light and strengthening, with the addition of a few spoonsful of wine, and an occasional dose of the quinine mixture (see 500).
945. Change of air is advisable as soon after recovery as possible, but carefully avoiding all exposure to damp or moisture. Should the cough continue after the abatement of all other symptoms, a little honey and syrup of squills may be given three or four times a-day, and a hot bean poultice placed round the throat on going to bed.
946. TO RESUSCITATE OLD APPLE TREES.-Take fresh made lime from the kiln, slake it well with water, and well dress the tree with a brush; by this means the insects and moss will be completely destroyed, the outer rind fall off, and a new, smooth, clear, healthy one formed, and the tree will re assume a healthy appearance, and produce abundance of fruit.
947. FROZEN POTATOES. - In the time of frosts the only precaution necessary is, to retain the potatoes in a perfectly dark place for some days after the thaw has commenced. In America, when they are sometimes frozen as hard as stones, they rot if thawed in open day, but if thawed in darkness they do not rot, and lose very little of their natural odour and properties.
948. DRESS IN QUEEN ELIZA. BETH'S TIME.-The ordinary habit of a nobleman at that time consisted of a doublet and hose, a cloak, or sometimes a long, sometimes a short gown, with sleeves. It must be remembered that the gown was originally a common, not a professional habit only, but that as state and gravity yielded to convenience in ordinary dress, it was exchanged for a short clcak, which, about the time of Charles the Second, gave way, in its turn, to the coat, as that is nothing more than the ancient sleeve doublet prolonged. In the meantime, ecclesiastics and other members of the learned profes. sions, whose habits varying little at first from the common dress of the times, had those little distinctions fixed by canons and statutes, persevered in the use of their old costume; in consequence of which they retain the gown, under various modifications, at the present day. The same observation may be made with respect to the hood, which however ill adapted to a common use, was the ancient covering for the head in ordinary clothing. The different orders of monks, the different universities, only varied the cut or the material of the hood for dis. tinction's sake. But, for common use, the hood was supplanted by the round citizen's cap, yet retained by the yeomen of the guard. This was succeeded by the hat, which first became general in Queen Elizabeth's time, nearly the shape of the modern round hat, only turned up on one side.
949. LIBRARIES FOR THE POOR

The following interesting particulars, in connection with this subject, were furnished to the parliamentary committee by Mr. Imray, whose labours in this direction are worthy of all praise :-
Have you had the means of observing whether the poorest classes of the population show much disposition to avail themselves of facilities for reading? - I have lately taken the superintendence of a ragged-school in the Marylebone district, and in connection with that school we have established a small library and readingroom, and those that have attended have attended with great regularity, and read the books with the greatest quietness and attention; the room is open every evening but one in the week.

How many frequent the room?-There have been one hundred at this season (May) : generally only twenty or thirty.
Of what age? -Those who attend in the evening are of the age of from sixteen to thirty or thirty five.

Do you throw it open to anybody ? -To anybody without restriction; generally those who attend the library are the same as those who attend the school.

They do not go there for the mere object of passing their time, or having a comfortable place to sit down in?-It is possible that they may begin from that motive; but having begun, they get interested in the books, and they return to get books to read. Since the means of emigration have been provided for those classes, and many have gone from that school, the inclination among them for reading works, which will give them information regarding the countries to which they intend to go, has been very great.

Is it not likely that they will imbibe more knowledge from books which they take up themselves, provided those books are well chosen, than from any other source? -I think so ; I may add, that a great number of those same persons who frequent the ragged-school library had been in the habit of reading before: but they had read the bad cheap publications, which had circulated in thousands among these classes. I may say, that among those classes there is, perhaps, a greater amount
of reading than among the better classes in London, but it is reading of the worst description.

You think the institution of good libraries would withdraw the population, and especially the most dangerous part of the population, from bad reading, to which they at present apply themselves? -I think it would have that tendency : and not only draw them from worse reading, but from worse pursuits.

How do the people conduct themselves in the reading-room? -With the greatest order and quietness.
Although they may be very humbly born and very poorly clad? - Extremely so, and many of them persons who would, under any other circumstances, be most noisy and rude in their conduct.

Have you known persons who apparently came with habits of disorder, gradually reclaimed, in consequence of reading in the library, to habits of order ? - I have known men of from twenty to thirty, who when they came smoked their pipes in the schoolroom, overturned the forms, and did all kinds of mischief, and now they are perfectly quiet and orderly, and they dress better: instead of rags they come with whole clothes (though of the poorest kind still), and they sit down in the library with the greatest quietness and decorum, and read the books.

Is it possible for the class amongst which you benevolently labour, to make a small subscription in aid of the funds of the library ? -I am afraid they are too poor for that; we have to provide them with almost everything, in order to attract them to the school ; we are not only obliged to make them pay nothing, but we are obliged occasionally to give them an entertainment-a supper or tea-party. At first, when the system was begun, they were very rude and unmannerly, but now they behave with the greatest courtesy, politeness, and quietness.
950. MICE-HAUNTS.-Mice invariably establish themselves underground whereever men lead the way. In the coal pits at Whitehaven they are numerous at the depth of one hundred and forty fathoms, conveyed probably at first in bundles of horse provender.

diagrams, exact size for patchwork borders. (See next page).
951. INDICATIONS OF CHANGE OF WEATHER AFFORDED BY PLANTS. -Very many of our most common plants are excellent indicators of atmospheric changes. The opening and shatting of some flowers depend not so much on the action of light as on the state of the atmosphere, and hence their opening and shutting betokens change. The common chickweed, or stitchwort, may be considered a natural barometer ; for if the small white upright flowers are closed, it is a certain sign of rain. During dry weather they expand freely, and are regularly open from rine in the morning till noon. After rain they become pendant, but in the course of a few days they again rise. The purple sandwort is another indicator of the weather. Its beautiful pink flowers expand only during the sunshine, and close at the approach of rain. The pompernel has been justly named "the poor man's weather glass." When its tiny, brilliant red flowers are widely extended in the morning, we may expect a fine day; on the contrary, it is a certain sign of rain when its delicate petals are closed. If the Siberian sow-thistle shuts at night the ensuing day will be fine, and if it opens it will be cloudy and rainy. When the African marigold remains closed after seven o'clock in the morning or evening,
rain may be expected. Lord Bacon tells us that the stalks of the trefoil swell and grow more upright previous to rain; and the gerenander speedwell, so universal a favourite in every hedgerow, closes its blue corolla before rain comes on, opening again when it ceases.
952. GREY HAIR.-The sedentary, the studious, the debilitated, and the sickly, are, with very few exceptions, those who are earliest visited with grey hair. The agricultural labourer, the seaman, and all whose employment consists of or involves exercise in the open air, are those whose hair latest affords signs that the last process has commenced, that the fluids have begun to be absorbed, and the textures dried up and withered. All whose employment renders much sitting necessary, and little or no exercise possible; all who, from whatever cause, have least determination, particularly if towards the head, are the persons most liable to carry grey hairs. It is well known that mental emotions and violent passions have, in a night, made the hair grey. These instances are in the same way to be understood and explained. They are owing to the increased determination of the blood stimulating the absorbents into preternatural activity, and causing them to take up the colouring matter of the hair.


Fig. 1.


FI 2.
PATTERNS FOR PATCRWORK BORDERS.
953. PATCHWORK PATTERNS FOR BORDERS. - These are intended to be used in cases where borders are required to a pattern, the materials and colours must therefore be regulated accordingly. The whole width of border No. 1 is nine inches, and the sizes of the pieces forming the centre are given. The diamonds should be the lightest colour, and the darkest should form the edge, which is composed of two double strips, each double strip being two and aquarter inches wide. In border No. 2, the strips are the same size, and should be of the lightest colour outside, and the next shade next. The size of the small triangles is given; they should be the darkest colour. The row of pieces forming the central part are each three-quarters of a square, three
inches square. The effect will be improved if some stitches be worked in chain-stitch, in black purse silk, in the position shown by the dotted lines in the pattern.

## 954. MARRIAGE RING SYMBO.

 LIZED. - We see many times even the godly couples to jar when they are married, because there is some unfitness between them which makes odds. What is odds but the contrary to even? Therefore, make them even, saith one, and there will be no odds. Hence came the first use of the ring in weddings; for if it be straiter than the finger it will pinch, and if it be wider than the finger it will fall off; but if it be fit, it neither pincheth nor slippeth. - Henry

DIAGRAM ILLUSTRATING THE ECONOMY OF TIME.
955. THE ECONOMY OF TIME.

The economy of time is the first concern in life ; for, in the abstract, time is life itself, and what we accomplish and enjoy constitutes the sum that makes life happy or miserable.

In making a right use of money, man usually calculates how much he has, and what proportions of the total he can devote to those objects and necessities that belong to his purposes and his duties. He applies so many pounds to this item, and so many to another item; and by thus apportioning his means to the ends he has in view, he manages to preserve an order, and to ensure a prosperity, without which all his affairs would be in confusion, and the business of life a constant pain to him.

But there are few who make so provident an arrangement respecting the application of time. That which is more valuable than
gold is less regarded than it, from the want of a due appreciation of its value.

Let a circle represent a day of twentyfour hours; let one-third of that circle be portioned off to represent the night which is passed in sleep; let four sections out of the remaining sixteen represent the hours devoted to food and to temporary relaxation during the day. There then remains four equal sections of three hours each, which constitute all the time that we have daily to apply to the active purposes of life. How many duties belong to the life of man? We cannot enumerate them all, because they differ in special cases. But the leading duties of life are :-

1. To worship God.
2. To acquire wisdom.
3. To maintain health.
4. To cherish love
5. To gain wealth.
6. To do good.

Now, let the dial of a day be permanently fixed upon the mind, together with these six leading duties of life, and man can at all times examine himself as to the use he is making of time, and how far, as each day advances, he has fulfilled the first, the second, or the sixth, or any other of the duties of life. He can as easily guide and stimulate himself to fulfil the objects of his existence, by simply picturing this diagram before him, as he can regulate his business appointments by looking at his watch.-From Life Doubled by the Economy of Time.

## 956. RELATIVE POSITION OF MAN AND WOMAN.

Nature having placed the stronger mind where she gave the stronger body, and accompanied it with a more enterprizing, ambitious spirit, the custom that consigns to the male sex the chief command in society, and all the affairs which require the greatest strength and ability, has a better foundation than some of the prejudices that result from it. The hard, laborious, stern, and coarse duties of the warrior, lawyer, legislator, and physician, require all tender emotions to be frequently repressed. The firmest texture of nerve is required to stand the severity of mental labour, and the greatest abilities are wanted where the duties of society are most difficult. It would be as little in agreement with the nature of things to see the exclusive pos. session of these taken from the abler sex to be divided with the weaker, as it is, in the savage condition, to behold severe bodily toil inflicted on the feeble frame of the woman, and the softness of feeling which nature has provided her with for the tenderest of her offices-that of nurturing the young-outraged by contempt, menaces, and blows. It is, therefore, an impartial decree which consigus all the offices that require the greatest ability to men. For is it less the interest of woman than of man, that property, life, and liberty should be secured, -that aggression should be quickly and easily repressed,-that contentment and order should prevail, instead of tumult? That industry should be well paid,-provisions cheap and plentiful, that trade should cover their tables and their persons with the comforts, conveniences, and luxu.
ries which habit has rendered necessary, or an innocent sensibility pleasurable? Is it less momentous to them that religious opinions should be free from persecution,that a wise foreign policy should mairtain those blessings in peace, and preserve us from the tribulation of foreign dominion? In objects of less selfish interest, are women less anxious than men, or more so, to see the practice of slavery expelled from the face of the earth? or our colonial government redeemed in every remaining instance from the stain that has too often attended it, of being numbered with the most oppressive? In the dangerous and difficult sciences of medicine and surgery, is it less important to women than to men, that the life which hangs by a thread should be trusted to those whose nerves and abilities ensure the greatest skill? Or, in law, that the decision of rights, the vindication of innocence, should be in the hands of those who can most patiently endure the driest studies, and must boldly follow human nature through all its various forms and all its foul pursuits? Ills enough, Heaven knows, ensue from the weakness and incapacity of man; but to confer the offices which demand all the skill and energy that can be had on those who are weaker still, would be injurious alike to both.

## 957. TO DESTROY INSECTS IN

 VINES.-The red spider is the most inveterate enemy of the vine. After every winter's pruning and removal of the outward rind on the old wood anoint the branches, shoots, and trellis with the following composition, the object of which is the destruction of the eggs or larvæ:-Soft soap, two pounds; flour of sulphur, two pounds; leaf of roll tobacco, two pounds ; nux vomica, four ounces; turpentine, one gill; boil the above in eight gallons of soft water till reduced to six. Lay on this composition milk warm, with a painter's brush; then, with a sponge, carefully anoint every branch, shoot, and bud, being sure to rub it well into every joint, hole, and angle. If the house is much infected the walls, flues, rafters, \&c., are also to be painted over with the same liquor. Watering over the leaves and fruit at all times, except the ripening season, is the preventive recommended, and which all gardeners approve.
## 98. SEPTEMBER FOR THE BOYS AND GIRLS.

Although the month of September is not more appropriately the month for anglers than any other of the warm or temperate months of the year, it falls within the plan of our work to say what we have to say, this month, under the head of Angling.
959. Angling is a peculiarly English sport; doubtless, it is pursued in other countries, but not to the extent, or with the perfection that it is carried on here. There are many reasons for this which we shall not stop to particularise; let us briefly point out a few directions to young anglers.
960. Rods.-A bent pin, two or three yards of thread, and a switch from the hedge, furnished the first fishing tackle of most young sportsmen. But for serious angling let us advise as follows:-The shops supply an endless assortment of rods for every sort of practice. Let the tyro be careful only to purchase in the company, and by the advice, of an experienced friend. The best rods are those made of bamboothe next best those of cane. The former are for the heavier fish, the latter for the lighter. The rod for bottom fishing should be perfectly straight when put together, and taper gradually from the butt to the top. As to the size of the rod, the advice and direction of your Mentor will be better than many words here, on the principle that an ounce of experience is better than a pound of theory. If desirous of making a rod for yourself, observe - the stocks should be cut in the winter season; for these, crab-trees furnish the best; for tops, hazel and yew switches serve admirably. Before use they should be thoroughly seasoned. In order to do this, they should be put away for at least twelve months. The rod should be formed of five or six pieces, and when put together, should fit so neatly that it might be taken to be of one piece only. The joints may be ferruled with brass; but this is not absolutely necessary, as they may be firmly bound with waxed thread or twine. The top sometimes consists of a piece of whalebone, well bound round with horsehair. Fly rods are made more taper than the others. For trolling, rods must be furnished with brass rings of a good diameter, at a distance apart of ten
or twelve inches for the trolling lines to run through. These rings will cut the line unless you adopt the precautionary measure of wrapping them with thread or twine. For carp, tench, dace, and roach fishing, the tops should be finer and more elastic.
961. When not in use, the rod should be kept in a place not too dry nor too moist. The joints adhere better by a little wetting, but be careful not to over-do this; all excess is bad, and being too much wetted they will stick, and in getting thers asunder the rod is apt to be broken.
962. Lines.-As with rods, so with lines; the best you can make yourself, will not be so good as the worst you can buy at almost any good angling warehouse. But if you still prefer to make them yourself, use silk and hair, rather than any other material, and plait them; do not twist them. A machine, fabricated especially for amateur line-makers, may be purchased at the shops; this you will find a great assistance to you. The most useful line is about four yards in length. A single hair line, with a small porcupine float, is sufficient for general fishing. The plaited silk lines are best for trolling; the line should be shotted, that it may sink to the desirable depth in the water; the shots should be affixed near together within two or three inches of the bottom loop of the line. Those natural pliers, the teeth, will suffice to fasten the shots on to the line, and the presence of these will always enable you to dispence with the artificial pair sometimes recommended; but mind in biting the shot not to bite in two the line also. It is hardly necessary to remind the line-maker that it should be finest near the end, and stoutest at the top.
963. Floats.-Floats may be thus classified:-1, tip-capped floats; 2, cork floats; 3, plugged floats. The first are made of various kinds of quills, of which Muscovy duck quills are said to be best for slow waters; and in fishing for roach, as they are sensitive to the slightest nibble. It is also best for pond fishing for carp and tench, as it requires few shots to sink it, and makes little fuss in going into the water.
964. Cork floats are best for strong and rapid streams; the cork should be shaped pyramidically -should be without flaw or
holes-rubbed fine with a pumice-stone, and may then be decorated to fancy. A round hole should be bored through with a hot wire, and the quill then inserted. Let the float also be nicely balanced by the shot, that it may have an exactly upright position in the water; you are then enabled the better to detect the slightest disturbance of the hook.
965. Plugged floats are simply quills plugged with a piece of cork, or pith. These are the floats most commonly used by the very young anglers, intent upon tittlebats and nothing more. But they are always inferior to the other kinds.
966. Hooks.-These must be purchased if you intend to do any real execution among the finny tribes. They are usually numbered, and classified as under :-
For taking Barbel.-Nos. 1, 5, 6, 7, 8, and 9.
Gudgeon.- Nos. 10 and 11.
Dace, Roach, and Bleak.-Nos. 10, 11, and 12.
Trout, -Nar, and Perch.-Nos. 7,8 , and 9 .
Trout.-No. 6.
Chub.-Nos. 8 and 9.
Eels.-No.s.
Grayling.-No. 10.
Ruff.-No. 9 .
Minnows.- No. 13.
Perch.-No. 7.
Smelt.-Nos. 9 and 10 .
Louehes, Miller's Thumb, \&e.-No. 13.
967 . The best baits are arranged below. We do not advise you to breed these at home or elsewhere for yourselves. The practice is nasty, and really useless now-adays, when you may procure them so easily of the proper dealers.
For Barbel and Eels. - Lob worm, garden worm, trechets. The "" oints" in these are red
heads, broad tails, and streaks heads, broad tails, and streaks down the back.
Perch. Tench, Bream, and Gudgeon tails, red worms, brandlings marsh and. - Gilt or dock worms, cod bait, caddis worm. worms, flag Trout, Chub, Dace, Roach, Grayling.
Palmer worm, canker worm (or woolling.-Tag tail, worm, caterpillar, cabbage worm, crab-tree worm and colewort grub; bark worm, or asl grub, cod bait, caddis worm, \&c.
Gudgeon, Bleak, and Carp. - Gentles, or maggots.
Pike, or Jack.-Dace, minnows, roach, smelt, gudgeon, bleak, and Miller's thumb. Besides these, we may add, that boiled salmon spawn is a good bait for chub and trout. In the three hot months, grass-hoppersminus their wings and legs-are good bait for roach, trout, chub, and grayling. For taking chub, barbel, roach, and dace, cheese and oat-cake serve exceedingly well. In March, April, and May, the water-louse, or
creeper, and water-cricket, are good baits for trout. House crickets are also good to dib with for chub. Roach and dace will bite greedily at greaves.
968. To Bait тHe Ноок.-1. With Gentles. Let the point of the hook enter the gentle near either end, and working it gentle-y through, bring it out at the other end. Then draw the hook's point back again, so as to disguise it as much as pos-sible.-2. With the Larger Worms. Let the point of the hook enter near the head of the worm, and carry it down carefully to within a quarter of an inch of its tail. Do not let too much of the worm be disengaged, lest the fish should be contented with that portion, and bolt. A little of either end of the worm is well left to wriggle about; this attracts the fish, and induces it to nibble.3. With Greaves. Having soaked your greaves - in cold, not hot water - select some white pieces, about the size of peas, and put four or five of them upon your hook, or as much as will cover it from the bend to and over the point. These are to be separate pieces-not one long pieceotherwise the hook is prevented from entering the fish firmly.
969. Ground Baits.-A ground bait for dace, bleak, and roach, is made, by working together into small balls rather less in size than pigeon's eggs, clay, bran, and bread crumbs.
970. A ground bait for chub, roach, and carp is thus made :-Mix bran and clay together in lumps, rather larger than a walnut, and put in the middle of each a few gentles, closing the clay about them. This is good for a pond or hole.
971. A ground bait for chub, carp, roach and dace is thus made:-Cut up into thick slices a half-quartern loaf; soak the whole in cold water; when thoroughly soaked, squeeze out the water, and add equal quantities of bran and pollard: knead the whole together and set aside in lumps the size of an apple. For barbel the same in. gredients, with the addition of half a pound of greaves worked up with them will serve.
972. Another ground-bait for barbel is made of clay and greaves only. Soak your greaves well, and having first selested and set aside some of the white pieces for your hook, as above directed, work up the re.
mainder into lumps or balls. A little bran is sometimes added to this ground-bait.
973. For carp, tench, roach, and dace, when these are sought for in ponds and quiet streams, gentles and worms thrown in by handfuls serve for a ground-bait. But when the current is strong, where these, if thus thrown in, would be carried away from the desirable spot where you are angling, they must be mixed with clay and bran as before described.. Grains are good groundbait in ponds and still waters, for carp, tench, and eels. But these must be quite fresh, otherwise they will be thrown away. They should be thrown in the night previous; the same method ought to be observed when you ground-bait with worms, \&c.

## 974. The Angler's Calendar.

January.-Pike, chub and roach only. The best time, the middle of the day. The weather should be still, and the water clear.
February. - Perch, carp, chub, roach, and pike. The best time, the middle of the day. The mildest days preferable, in eddies and near banks.
March. - In eddies and shallows, about the middle of the day, pike, carp, perch, roach, dace, chub, and gudgeon will bite.
April. - In addition to those mentioned under March, trout, tench, barbel, bleak, flounders, and eels may be taken-the two first in rivers, the others in shallow waters.
May-All sorts of fish bite well this month. Eels bite night and day.
June. - Not a good month for the angler. The spawning season. Trout may be taken.
July.-All sorts begin again to bite.
August.- Fish begin to bite more boldly. Morning and evening best times
September- - Barbel, roach, chub, and dace, are found in deep water. Your baits must be shotted to reach the bottom.
October:-Roach and chub in bottoms. Not a good month for ponds or still waters.
November.- Roach, jack, and chub, if the weather be quiet. The middle of the day best.
December.- Put up your tackle, and let yourselves and the fish have the benefit of the Christmas season.
975. Hints to Anglers. - In the preceding paragraphs we have confined ourselves to simple angling, without reference in detail to fly fishing, salt water fishing, bobbing and sniggling for eels. We defer these to a future occasion. In bottom fishing plumb the depth accurately, and do not disturb the ground any more than you can avoid. As a general rule, keep as far from the water as you can: neither let your shadow fall upon the water. Most fish are wary enough to detect the presence
of their enemy, and are put upon their guard accordingly. This rule is most imperative in shallow waters; in deep bottom it is of less importance.
976. Preserve you temper. If you miss a hook or snap a line sit down quietly and repair it.
977. During a hail shower, a windy, or a very cold day, much sport is not to be expected. Foggy, dull, and slightly rainy days are the best. Keep your feet dry by means of strong and water-proof boots and shoes. Do not, when hot, drink water from rivers and ponds.
978. The south, south-west, west, and south-east winds mostly favour anglers. In hot weather a cool wind is most favourable to sport; in the colder months a warm wind is preferable. Places sheltered from the cold winds are the best in winter. In summer the fish seek the coolest spots. A cloudy day, after a bright night, is good for the angler, as are also the quiet intervals between showers. When a calm bright morning is succeeded by a gloomy day, with wind without rain, the fish, especially the larger sorts, will bite well. A study of the weather is always desirable on the part of the angler ; he will soon, by comparison of one day's sport with another, be able to form a weather almanac for himself: thus upon a day big with bad portents, he will save himself much trouble and vexation by staying at home, looking over his tackle, constructing flies, floats, rods, studying his Waltonian maxims, preparing his waterproof boots, and generally laying up materials and wisdom for a more propitious day.
979. When the wind blows right across the water fish with your back to it, as you can not only throw your line better, but the fish will be on that side, attracted thither by the flies and other natural baits which the wind will blow ints it.
980. Do not give way to the bad practice of physicing the fish with oils or chemical preparations. Such things are unfair and unworthy of the genuine angler. Your object should be sport : pure, honest, legitimate sport, not poisoning.
981. Do not trespass. Before commencing to fish ascertain that the waters are free to you. The mind of the angler should be calm and free from distraction:
and it is impossible that it should be so while there is a consciousness of poaching or intrusion.
982. Molest no one whom you may find in possession of a spot which you may have intended to occupy. Be civil and obliging to all brother anglers, and to all others whom you may meet upon your excursions, and maintain for your science the epithet of "the gentle art." If two or more persons angle in company, there ought to be a distance maintained between them of at least twenty.five yards. Strict disciplinarians maintain solitude and silence to be necessary to success.
983. SCOTCH FARMER'S DAILY BILL OF FARE.-The following is given as a Scotch farmer's daily bill of fare in the year 1782 :-Breakfast: Pottage made with boiling water, thickened with oatmeal, and eat with milk or ale; or brose made of shorn cabbage or coleworts left over night. After either of which dishes they eat oatcakes and milk, and where they have not milk, kale or small beer. Dinner : Sowens eat with milk. Second course, oat-cakes eat with milk or kale. Sowens are prepared in this manner:-The mealy side or hull of the ground oat is steeped in blood-warm water for about two days, when it is wrung out and the liquor put through a search; if it is too thick they add a little fresh cold water to it, and then put it on the fire to boil, constantly stirring it till it thickens, and continuing the boiling till it becomes tough like a paste. In the stirring they mix a little salt, and dish it up to table. Supper: First course during the winter season, kale-brose eat about seven at night, while at the fireside the tale goes round among the men and maid servants. Second course, kale eat with oat-cakes, about nine. During the summer season there is generally but one course-pottage and milk, or oat-cakes and kale or milk. Kale is thus prepared:-Red cabbage or coleworts are cut down and shorn small, then boiled with salt and water, thickened with a little oatmeal, and so served up to table. Brose is oatmeal put into a bowl or wooden dish, when the boiling liquor of the cabbage or coleworts are stirred with it till the meal is all wet. This is the principal dish upon the festival of Fasten-even, which is emphatically called Beef-brose Day.

## 984. TO CULTIVATE ASPARAGUS.

That part of the garden which receives most sun, and is the least shaded by shrubs and trees, should be selected for raising asparagus. A pit must be then dug five feet deep, and the mould which is taken from it must be sifted, taking care to reject all stones either large or small. The best parts of the mould must then be laid aside for making up the beds.

The materials of the bed are then to be laid in the following proportion and order : -Six inches common dunghill manure, eight inches turf, six inches of manure as before, six inches sifted earth, eight inches turf, six inches dung (very much decayed), eight inches best earth. The two last must be well mixed together.

The whole space must now be divided into beds, five feet wide, by paths constructed of turf, two feet in breadth, and one inch in thickness. The asparagus must be planted about the end of March, eighteen inches asunder. In planting them, the bud or top of the shoot is to be placed at the depth of an inch and a half in the ground, while the roots must be spread out as wide as possible, in the form of an umbrella. A small bit of stick must be placed as a mark at each plant, as it is laid in the ground. As soon as the earth is settled and dry, a spadeful of fine sand is to be thrown on each plant in the form of a molehill. If the as. paragus plants should have begun to shoot before their transplantation, the young shoots should be cut off, and the planting will, with these precautions, be equally successful; so it should be performed in this country even as late as July. Should any of the plants originally set have died, they also may be replaced at this season.
The plants ought to be two years old when they are transplanted, they will even take at three, but at four they are apt to
fail.
In three years, the largest plants will be fit to cut for use. If the buds be sufficiently large to furnish a supply in this manner, the asparagus shoots should be cut as fast as they appear, otherwise they must be left till the quantity required has pushed forth, in which case the variety in colour and size prevents them from having so agreeable an appearance.

The asparagus bed above described will last thirty years; but if the plants are set in so abundant that they require cutting, only once in 27 years-half the bed being always in a state of reservation, it will last a cen. tury or more.
985. INCREASE OF SUMMER WOODCOCKS.-What is the reason of the summer woodcock breeding so much more frequently of late years in Britain than of old, when it was known only as a winter immigrant? Is this to be attributed to a change in our seasons, or (which may have a casual connection with that change) an increase of woods and plantations, which afford additional and more secure retreats, and a better and more abundant supply of food? Sir William Jardine regards this increase as rather apparent than real, and thinks it occasioned by the greater attention now paid to ornithology, and the more frequent observance and record of all natural phenomena than formerly. In Ireland the occurrence of summer or breeding woodcocks is quite familiar. Let us take the instance of Tollymore Park, the Earl of Roden's, in the county of Down. It is beautifully situated at the base of the mountains of Mourne, which rise to a height of nearly three thousand feet, and present a variety of surface abounding in wood of different ages, with occasional moist though open glades, which even in a dry and sultry summer afford an abundant supply of food. Although a resi lent since 1828, it was only in 1835 that Lord Roden's keeper became aware of woodeocks continuing there throughout the year. The first nest he saw was at the foot of a larch tree, and looked like a pheasant's. It contained four eggs, and on these the parent sat so close as to allow him to approach within a foot. When any one went very near, she was always observed to bury her bill to the base in the grass or withered ferns alongside the nest. Since 1838, the number which has remained to breed in Tollymore Park has been on the increase. In 1842, nine nests were seen ; in 1843 , twenty-two ; in 1847.8-9 they bred so abundantly, that not less than thirty nests were found in each of those years; and they are now so frequent and common-place as to cease to attract attention.

## 986. HYMN TO CONTENT.

0 thou the nymph with placid eye, 0 seldom formed yet ever nigh,

Receive my temperate vowNot all the storms that shake the pole Can e'er disturb thy haleyon soul, And smooth the unaltered brow.
O come in simple vest arrayed, With all thy sober cheer displayed,

To bless my longing sight;
Thy mien composed, thy even pace, Thy meek regard, thy matron tace,

And chaste subdued delight.
No more by varying passions beat,
O gently guide 0 gently guide my piligrim feet To find thy hermit cell;
Where in some pure and equal sky,
Beneath thy soft indulgent eye,
The modest virtues dwell.
Simplicity in attic vest,
And Innocence with candid breast And clear undaunted eye,
And Hope who points to distant years,
Fair opening through this vale of tears, A vista to the sky.
There Health, through whose calm bosom glide
The temperate joys in eventide
That rarely ebb and flow;
And Patience there, thy sister meek,
Preseuts her mild, unvarying cheek
To meet the offered blow.
Her influence taught the Phrygian sage
A tyrant master's wanton rage
With settled smiles to wait;
Inured to toil and bitter bread,
He bowed his meek, submissive head,
And kissed thy sainted feet.
But thou, O nymph retired and coy,
In what brown hamlet dost thou joy
To tell thy tender tale?
The lowliest children of the ground,
Moss-rose and violet blossom round, And lily of the vale.
O say what soft propitious hour
I best may choose to hail thy power, And court thy gentle sway;
When Autumn, friendly to the muse,
Shall thy own modest tints diffuse, And shed thy milder day.
When eve her dewy star beneath
Thy balmy spirit loves to breath, And every storm is laid,
If such an hour was e'er thy choice,
Oft let me hear thy soothing voice, Low whispering through the shade.
987. BIRD KEEPING.-Cage birds naturally require pure air, and are seriously affected by a vitiated atmosphere, so much so that a canary bird, suspended near the top of a curtained bedstead in which people have slept, will generally, owing to the impurity of the air, be found dead in the morning.

## 988. PECULIARITY IN THE FEET OF INSECTS.

Many insects are provided with cushions at the extremity of the feet, evidently for the purpose of breaking the force of falls, and preventing the jar which the frame would otherwise have to sustain. These cushions are formed of dense, velvety tufts of hair, lining the under side of the tarsi, but leaving the claw uncovered; and the filaments, by insinuating themselves among the irregularities of the surfaces to which they are applied, produce a considerable degree of adhesion. Cushions are met with chiefly in large insects, which suddenly alight on the ground after having leaped from a considerable height; in the smaller species they appear to be unnecessary, because the lightness of their bodies suffciently secures them from any danger arising from falls.

Some insects are furnished with a still more refined and effectual apparatus for adhesion, and one which even enables them to suspend themselves in an inverted position from the under surfaces of bodies. It consists of suckers, the arrangement and construction of which are exceedingly beautiful; and of which the common house-fly presents us with an example. In this insect, that part of the last joint of the tarsus which is immediately under the root of the claw, has two suckers appended to it by a narrow, funnel-shaped neck, moveable by muscles in all directions. The sucking part of the apparatus consists of a membrane, capable of contraction or extension, and the edges of which are serrated, so as to fit them for the closest application to any kind of surface. In the tabanus, or horse-fly, each foot is furnished with three suckers. In the cimbex lutea, or yellow saw-fly, there are four, of which one is placed upon the under surface of each of the four first joints of the toes; and all the six feet are provided with these suckers. In the dytiscus marginalis, suckers are furnished to the feet of the male insect only. The three first joints of the feet of the fore-legs of that insect have the form of a shield, the under surface of which is covered with suckers, having long tubular necks; there is one of these suckers very large, another of a smaller size, and a great number of
others exceedingly small. In the second pair of feet, the corresponding joints are proportionally much narrower, and are covered on their under surface with a multitude of very minute suckers. The Acridium biguthelum, which is a species of grasshopper, has one large oval sucker under the last joint of the foot immediately between the claws. On the under surface of the first joint are three pair of globular cushions, and another pair under the second joint. The cushions are fitted with an elastic, fibrous substance, which, in order to increase the elasticity of the whole structure, is looser in its texture towards the circumference.

The mode in which these suckers operate, may be distinctly seen by observing, with a magnifying glass, the actions of a large blue-bottle-fly in the inside of a glass tumbler. A fly will, by the application of this apparatus, remain suspended from the ceiling for any length of time without the least exertion, for the weight of the body pulling against the suckers serves but to strengthen their adhesion: hence flies are found preferring the ceiling to the floor as a place of rest.

Insects which, like the gnat, walk much upon the surface of water, have, at the ends of their feet, a brush of fine hair, the dry points of which appear to repel the fluid, and prevent the leg from being wetted. If these brushes be moistened with spirit of wine, the apparent repulsion no longer takes place, and the insect immediately sinks, and is drowned.

## 989. INTERVALS BETWEEN

 MEALS.-As a general rule, an interval of five or six hours should elapse between each meal, but this of course varies according to circumstances. Persons engaged in business frequently do themselves much mischief by disregarding these monitions amidst the bustle and excitement of business. It is no unusual thing for a merchant to breakfast at eight o'clock in the morning, ride several miles, and return to dine at six or seven o'clock in the evening, without having eaten anything all day. This is very injurious, and although it may not be immediately felt, it lays the train for subsequent dyspepsia and all its attendant horrors.
## 990. PHENOMENA FOR SEPTEMBER.

The name September is no longer appropriate to this, the ninth month of the year, as it is now divided by European nations; since the term is derived from the Latin septem (seven), and the termination ber. The same inappropriateness may also be urged against Octo-ber, Novem-ber, and Decem-ber, which titles severally mean, the eighth, ninth, and tenth months. The Roman year originally commenced in March, and the names of all the months were Latin terms; hence the old lawyers, who wrote in Latin, supposed that the year commenced as in the Roman calendar, which would make September the seventh month. Indeed, the "legal year," was not made to commence on the first of January, till the act of parliament was passed for the alteration of the style of chronology, in 1752.
991. The wheat harvest has been begun, and is nearly finished before the month has half run its course; and from field and wayside, wood and hilly slope, there steams up a fragrance like the incense offered by the grateful earth to heaven. But the warning tints of autumn are coming on. "The bright-leaved walnut, the roughfoliaged mulberry, the fingered horse-chesnut, are nearly bare; and the leaves that flutter on the delicately clothed lime and the broad-handed sycamore, are few. The maple, the ash, and the hornbeam, assume a yellow pall; while the cherry and the dogwood-tree are dressed in glowing red. The plane-tree, with its angled leaves, and the hawthorn, with its scizzared foliage, are tawny in their autumn dress; while the stalwart elm is orange in his mourning. Nuts hang upon the boughs for gathering, and berries crowd upon the privet and blackberry; but the nightingale has gone from the woods, and the swallow has left the solemn avenues in their stillness. In their room the death's-head moth flaps its broad slow wings over the grave of the summer time; while the 'shard-borne beetle' trumpets a low requiem in the chilly air."
992. In a former article some information was given about the electrical discharges which take place from the clouds. When rain occurs, accompanied by thunder and
lightning, the phenomena is called a " thun-der-storm," or more commonly "a storm." But this term is variously applied in different countries. In some instances a violent agitation of the atmosphere is called a storm of wind; and we have, moreover, " hail-storms," " snow-storms," " sandstorms," \&c.
993. It has been explained that there are storms of regular occurrence in many countries situated in the torrid zone, called monsoons, simoons, tornados, \&c. Of these it is unnecessary to speak further, but more especially to notice the phenomena of windstorms or hurricanes, which occur with much irregularity in various warm climates, and whose effects, diminished in intensity, we not unfrequently feel in northern latitudes in March, and towards the latter part of September. This will form an appropriate sequel to the previous article on "thunder-storms," or storms accompanied by electrical discharges.
994. The "law of storms" has been the object of great attention during the last few years; or, in other words, great efforts have been made to discover the circumstances under which wind-storms, or hurricanes, arise, and to obtain observations of the phenomena which they present. At first sight their action and occurrence $a p$ peared irregular, and we might almost say capricious; but the laws of the universe were ordained from the beginning, and nothing can be accidental. The phenomena which seem the most irregular are often found to be, in fact, the very reverse; and "exceptions," over and over again, "have proved the law." As an example of this, we might note how the aberrations of the planets at first appeared to disprove the Newtonian theory, but were, upon examination, found to show that gravitation was a universal principle, and that the views of Newton were beautifully confirmed by that which was adduced as an exception. For a long period the law of storms assumed no very definite form, the question of chief difference being whether wind-storms or hurricanes were direct currents, or great whirlwinds. It is, however, now generally admitted, that, though there may be currents of air passing over portions of the earth's surface with great rapidity, such wind-storms rarely or never do much mis.
chief, or assume such violent characters as those wind-storms which are of a circular form, or whirlwinds. "The general phenomena of these storms will be understood, if the storm, as a great whirlwind, be represented by a circle whose centre is made to progress along a curve, the circles expanding as they advance from the point at which the storm begins to be felt-the rotatory motion, in the northern hemisphere, being in the contrary direction to that in which the hands of a watch go round." In the southern hemisphere the rotatory motion is in the opposite direction.
995. It appears that the East India fleet, and other vessels, in 1809, experienced a dreadful storm in latitudes near the Cape of Good Hope. "Some of the vessels scudded and ran in the storm for days; some, by lying-to, got almost immediately out of it; while others, by taking a wrong direction, went into the heart of it, foundered, and were never heard of more; others, by sailing right across the calm space (in the centre of the whirlwind), met the storm in different parts of its progress, and the wind blowing in opposite directions, and considered and spoke of it as two storms which they had encountered; while others, cruising about within bend of the curve, but beyond the circle of the great whirl, escaped the storm altogether."
996. By a complete knowledge of the law of storms, the experienced captain can so guide his vessel as to avoid the storm altogether, or to keep in its rear. The study of this subject is, therefore, essential to safety in navigation.
997. Many of our readers will have observed how, in calm weather, sand and dust are carried by the wind with a whirling motion through the air, and that, on the approach of a storm, larger whirlwinds carry up sand and dust into the air. But rotating hurricanes seldom appear beyond the tropics, though it is believed that all our violent wind-storms have a rotatory motion. The devastations occasioned by them in the hotter climates, where sudden condensations of vapour give rise to the rushing in of opposing winds, and thus originate whirlwinds, are truly frightful. Thus, for instance, in the memorable tornado which desolated Guadaloupe in 1847, solidly built houses were torn up, and their
parts thrown to considerable distances; cannons were hurled from the top of the parapets of the batteries on which they were placed; and it is related that a plank of about three feet in length, eight inches in breadth, and ten lines in thickness, was propelled by the air with such force that it perforated the stem of a palm-tree seventeen inches in diameter.
998. It has been observed that the progressive motion of whirlwinds is from the equator towards the poles; and by this fact the observer may ascertain his position with reference to the storm. This fact has thrown a curious light upon the question of the nature of the spots on the sun, which, it is well known, take the same direction from his equator to his poles as our earthly whirlwinds. It having been decided that the luminosity of the sun depends upon his atmosphere, there is little reason to doubt but that the spots are the centres of solar hurricanes, from which the radiant medium is thrown by the centrifugal force produced by the rotatory motion.

## 999. TO JUDGE OF THE QUALITY OF CLOTH.-Particular attention must be

 paid to the fineness of the fabric and the closeness of the texture. If, on passing the hand lightly in a direction contrary to the nap, there be a general silkiness of feel, uninterrupted by harsh roughness, they are grounds for concluding that the cloth is made of fine wool. The texture should not only be composed of fine threads, but it should have an even consistency, produced by the operation of felting, by which the fibres of the wool are so perfectly incorporated that they connect the tissue of the threads and give the entire web the appearance of felt. Dealers judge of the quality of cloth by an expedient which is more easily understood by observation than conveyed by description. A portion of the cloth is taken up loosely with both hands, a fold of it being then pressed strongly between the thumb and forefinger of one hand, a sudden pull is given with the other; and according to the peculiar sharpness and vibratory clearness of the sound produced by the slipping of the fold, the goodness of the cloth is judged. The gloss on the cloth is better not to be too satiny, as this causes it to spot with the rain.
## 1000. INFLUENCE OF DRESS.

There are few persons who have failed to observe the disposition which is shown by the generality of mankind to judge of individuals by their personal appearance, and to regard them with a favourable eye in proportion to the quality of the garments in which they are attired. It is a disposition which has been distinguishable alike in all ages and in all countries; and it is one which, from its present position, seems little likely to be removed.

The individual whose coat is of a fashionable cut and a superior texture, will seldom have to complain of a want of courtesy. In every shop he enters he is the object of the most obliging attention imaginable; bows and smiles are given in abundance, and his commands are attended to with the most astonishing alacrity. In company, his blunders are recognised as examples of original humour, his jokes set a multitude of admiring and respectful listeners in a roar of laughter, and even his personalities are received as valuable criticisms. His whole conduct is unexceptionalle.

Not so the man whose dress is at all mean-quite the contrary. What a want of principle, what an absence of refinement and intelligence are denoted by the dilapidation of his garb, and how strongly are the faults and follies of his frail humanity evinced and typified by its faded and wornout condition. It is the dress, and not the man, which makes the difference. Let the brightest flashes of wit emanate from one whose elbows appear through the sleeves of his coat, and who will not pronounce his remarks forward and impertinent. Clothe talent with an ill-conditioned mantle, and who deigns to notice such dull mediocrity. Let genius be thus attired, and how quickly will his most ethereal flights and profoundest researches be considered as the ravings of insanity, or the mysticisms of dulness.
1001. SECRETS OF COMFORT.Though sometimes small evils, like invisible insects, inflict pain, and a single hair may stop a vast machine, yet the chief secret of comfort lies in not suffering trifles to vex one, and in prudently cultivating an undergrowth of small pleasures, since very few great ones, alas! are let on long leases.
1002. INFLUENCE OF LIGHT UPON THE HUMAN CONSTITUTION.-Dupuytren, the French physician, relates the case of a lady whose maladies had baffled the skill of several eminent practitioners. The lady resided in a dark room, into which the sun never shone, in one of the narrow streets of Paris. After a careful examination, Dupuytren was led to refer her complaints to the absence of light, and recommended her removal to a more cheerful situation. This change was followed by the most beneficial results, and all her complaints vanished. Sir James Wylie has given a remarkable instance of the influence of light. He states that the cases of disease, on the dark side of a barrack at St. Petersburg, have been uniformly, for many years, in the proportion of three to one to those on the side exposed to strong light. The experiments of Dr. Edwards are conclusive. He has shown that if tadpoles are nourished with proper food, and exposed to the constantly renewed contact of water (so that their beneficial respiration may be maintained), but are entirely deprived of light, their growth continues, but their metamorphosis into the condition of air-breathing animals is arrested, and they remain in the form of large tadpoles. Dr. Edwards also observes that persons who live in caves or cellars, or in very dark and narrow streets, are apt to produce deformed children; and that men who work in mines are liable to diseases, which can only be attributed to the withdrawal of the blessings of light.
1003. LOVE OF THE WONDERFUL. -What stronger pleasure is there with mankind, or what do they earlier learn or longer retain, than the love of hearing and relating things strange and incredible? How wonderful a thing is the love of wondering and raising wonder. It is the delight of children to hear tales they shiver at, and the vice of old age to abound in strange stories of times past. We come into the world wondering at everything, and when our wonder about common things is over, we seek something new to wonder at. Our last scene is, to tell wonders of our own to all who will believe them. And amidst all this it is well if truth comes off but moderately tainted. - Shaftesbury's Characteristics.
1004. WHAT IS LIFE?

And what is life? an hour glass on the run, A mist retreating from the morning sun, A busy, bustling, still-repeated dream;
Its length, a minute's pause - a moment's thought-
And happiness a bubble on the stream, That in the act of seizing shrinks to nought.
And what is hope? the puffing gale of morn
That robs each flowret of its gem, and dies;
A cobweb hiding disappointment's thorn.
Which stings more keenly through the thin disguise.
And what is death? Is still the cause unfound ? That dark, mysterious name of horrid sound! A long and lingering sleep the weary crave; And peace, where can its happiness abound ? Nowhere at all, save heaven and the grave.
Then, what is life, when stripped of its disguise? A thing to be desired it cannot be,
Since every thing that meets our forlish eyes
Gives proof sulfient of its vanit Gives proof sufficient of its vanity.
'Tis but a trial all must undergo
To teach unthankfull mortala how to prize
That happiness vain man's denied to know,
That happiness vain man's denied to know, Until he's called to claim it in the skies.

Clare.

## 1005. HOW TO STORE COALS.-When

 the coals are shot down into the cellar through the circular aperture they form a conical heap under it, and, as is always the case with loose materials, the largest pieces roll farthest down on the outside of the heap, the smallest occupying the top. Were the coals to be used from this heap as it is formed, the result would be that all the large pieces of coal would be taken first, and towards the last there would be only small coals. To prevent this, a person called a trimmer is sent by the coal merchant, whose business it is to mix the small and large together properly, by throwing the whole into the end of the vault. But unless the trimmer be looked after, he is very apt to neglect doing this properly, his only object too often being to keep them within the door of the coal-cellar, without caring whether they are mixed or not.1006. COMPARATIVE NUTRITIVE PROPERTIES OF FOOD.-Every hundred weight of bread contains eighty pounds of nutritious matter; butcher's meat, averaging the various sorts, thirty-five; French beans (in the grain), ninety-two; broad beans, eighty-nine; peas, ninety-three; greens, eight; turnips, eight; carrots, fourteen; and potatoes twenty-five. One pound of good bread is equal to nearly three
pounds of potatoes, and seventy-five pounds of bread and thirty pounds of meat are equal to three hundred pounds of potatoes; or, to go more into detail, three-quarters of a pound of bread and five ounces of meat are equal to three pounds of potatoes; one pound of potatoes is equal to four pounds of cabbage, and three of turnips; but one pound of rice, broad beans, or French beans, is equal to three pounds of potatoes.
1007. HOW TO MANAGE FIRES.-To derive the greatest advantage from open coal fires, it is necessary not only that the place should be well selected. but that the fire should be properly managed. It is not sufficient that the coal burns well; for it may do so without giving so much heat to the apartment as if it were managed differently. Here again we shall find that by resorting to a few principles we shall comprehend more clearly what is the best practice. Air is essential to combustion, and it is by the decomposition of air, during this process, that heat is evolved; it follows from this, that, in order to throw out the most heat, the fuel should be so arranged that the air shall have free access to every part; care should therefore be taken that the coals do not lie in too compact a body, but that interstices should be left, that the air may penetrate through the fire.
1008. COAL AGENTS.-Five-sixths of the London public is supplied by a class of middle-men, who are called in the trade "Brass-plate coal-merchants." These consist principally of clerks, gentlemen's servants and others, who have no wharfs, but merely give their orders to some true coal merchant, who sends in the coals from his wharf. The brass-plate coal-merchant of course receives a commission for his agency, which is just so much loss to the consumer.
1009. TO CURE SHEEPSKINS WITH THE WOOL ON. - Pulverize and mix well together a spoonful of alum and two of saltpetre; after sprinkling the powder on the flesh side of the skin, lay the two flesh sides together (leaving the wool outside), fold up as dry as possible, and hang in a dry place. In two or three days take it down and scrape it with a blunt knife till clean and supple; this completes the process. Other skins with fur or hair on may be cured the same way.

## 1010. PHYSICAL ORGANISATIONITS MYSTERIES.

Has the vulture, and all that class of birds who bolt everything, any organ of taste ? When the owl swallows a mouse whole, does he taste him in his stomach? Is it the same with the pigeon and his peas? What sort of hearing has the shark, if any? The organs of smell in the shark, who discovers through the great volume of water and through the dense timber, that a body is lying dead-yea, or dying-is wonderful. But, beyond the fact, we know little or nothing. The same creature, whether shark or cat, that has a wonderful sense of smell for some things, seems to have no smell for many others. No one ever saw a monkey smell a flower. If he did so, it would only be to inquire if it were eatable or poisonous. Then, as to the sense of touch. What a fine work goes on in the language of the antennæ of insects! and yet it is impossible that the majority of them can possess sensations like ours. A wasp flies in at the window, alights on the breakfast-table, runs swiftly up the side of the sugar-basin, and displays his grim face in a brazen mask, with iron spectacles, just above the rim. The next moment, he darts upon the sugar ; but an alarmed hand advances a pair of scissors, and suddenly snips off his head. The body staggers, and, perhaps, flies off, while the jaws of the brazen mask, with iron spectacles continue for some seconds to work away at the sugar, as though no decapitation had occurred. With the general character, temper, faculties, and habits of inferior creatures, naturalists are, of course, far more intimately acquainted than the world at large; but the naturalists are an exceptional class, comprising only a few individuals; and even amongst the best informed of these, how little can they fathom of the mind, or what is visibly going on within those many-shaped, grotesque heads of beasts, birds, fishes, and insects. The greyhound runs by eyesight only; and this we observe as a fact. The carrier-pigeon flies his two hundred and fifty miles homeward by eyesight, viz., from point to point, of objects which he has marked; but this is only our conjecture. The fierce dragonfly, with twelve hundred lenses in his eyes, darts from angle to angle with the rapidity of a flashing sword, and as suddenly darts
back again-not turning in the air, but with a clash reversing the action of his four wings, -the only known creature that possesses this faculty. His sight, then, both backward and forward, must be propoportionately rapid with his wings, and instantaneously calculating the distance of objects, or he would dash himself into pieces. But in what conformation of his eye does this miraculous faculty consist? No one can answer. A cloud of the thousand gnats dance up and down in the sun so closely together, that you can scarce see the remotest space between them, yet no one knocks another headlong down, or hurts a leg or wing, long and delicate as these members are. Suddenly, amidst your admiration of this matchless dance, a peculiarly highshouldered, noxious gnat, with long, pale, pendant nose, darts out of the moving cloud, and, settling on your nose, inserts a poisonous sting. What possessed the little wretch to do this? Did he smell your blood in the mazy dance? or, if he, why not others of the throng? No one knows. A fourhorse coach comes suddenly upon a flock of geese, on a narrow road, and drives straight through the middle of them. A goose was never yet known to be fairly run over, nor a duck. They are under the very wheels, and almost touch the horse's hoofs; yet, somehow, they contrive to flap and waddle safely off. Habitually stupid, heavy, and indolent, they are, nevertheless, equal to the emergency of self-preservation. Why does the long woodpecker, when he descends his tree, and goes to drink, stop several times on his way to listen, and to look around, before he takes his draught? No one, knows. How is it that the species of ant which is taken in battle by other ants to be made slaves of, should be the black or negro-ant? No one knows. A large species of the star-fish possesses the power of breaking itself into fragments, under the influence of terror, rage, or despair. "As it does not generally break up," says Professor Forbes, "before it is raised above the surface of the sea, cautiously and anxiously I sunk my bucket, and proceeded, in the most gentle manner possible, to introduce Snidia (the star-fish) to a purer element. Whether the cold air was too much for him, or the sight of the bucket too terrific, I know not; but in a moment he proceeded to dissolve his corpo-
ration ; and out of every mesh of the dredge, his fragments were seen escaping. In despair I rushed at the largest, and brought up the extremity of an arm, with its terminating eye, the spinous eyelid of which opened and closed with something exceedingly like a wink of derision." With this exquisite specimen of natural history wonders, for which naturalists can only vouch that "such is the fact," and admit that they know no more, we close our digression.

## 101I. HIRING OF SERVANTS.

In hiring servants, all will desire to have those who have spent most of their years of service, and especially their earliest, in families whose principles, habits, and general bearing in their rank of life, are of the best and most respectable description. It would signify little whether such families were of high or inferior standing in society, provided their habits of life enforced on all around them the love and practice of neatness, order, regularity, and cleanliness, and the still more essential qualities of integrity and sobriety. In hiring servants, it is also desirable to have those whose immediate relatives and connections are respectable, however poor they may be. Those who hold their relatives and friends in respect will not be indifferent to their own characters; they will desire to do credit, and not to disgrace an honest parentage; and then the tide of respectability will be turned to its right use. In regulating the conduct of servants, it is requisite that the legal points in the business should be known. Indeed, the servant, equally with the master or mistress, should understand the rights which are mutually possessed, and in what respect the infringement of these rights on either part would affect their contract; in some cases they would find themselves amenable to legal process. Each party should know that servants may be legally punished for insolence, and for assaulting their master or mistress; that they may be fined for drunkenness, gaming, cursing and swearing; that if, by misdemeanour, they are legally detained from their master's house, the contract between them is void. On the other hand, if not chargeable with misdemeanour, the master or mistress cannot discharge them from their service, with-
out paying them that portion of the year's wages which was agreed upon when hiring, or allowing them to remain in their service a stated time, after giving them warning, unless the separation takes place by mutual consent. On this head, the usual agreement between the principals and household servants is to allow, on each side, a month's notice to be given, or a month's wages to be paid.
1012. VIRTUE WITHOUT FEAR.When, upon mature deliberation, you are persuaded a thing is fit to be done, do it boldly; and do not affect privacy in it, or concern yourself at all, what impertinent censures or reflections the world will pass upon it. For if the thing be not just and innocent, it ought not to be attempted at all, though never so secretly. And if it be, you do very foolishly to stand in fear of those who will themselves do ill in censuring and condemning what you do well. -Epictetus.
1013. LASTING EFFECTS OF HEAT. -The French, during the time their army remained under Buonaparte in the Holy Land, constructed two very large ovens in the Castle of Tiberias. Two years had elapsed at the time of our arrival, since they had set fire to their granary, and it was considered a miracle by the inhabitants of Tiberias that the combustion was not yet extinguished. We visited the place, and perceived that wherever the ashes of the burned corn were stirred, by thrusting a stick among them, sparks were even then glowing throughout the heap, and a piece of wood being left there became charred. The heat in those vaulted chambers where corn had been stored was still very great.Clark's Travels.

## 1014. TO HEAL WOUNDS IN TREES.

 -This may be effected by making a varnish of common linseed oil, rendered very drying by boiling it for the space of an hour, with an ounce of litharge to each pound of oil, mixed with calcined bones, pulverized and sifted to the consistence of an almost liquid paste. With this paste the wounds are to be covered, by means of a brush, after the bark and other substance have been pared, so as to render the whole as smooth and even as possible. The varnish must be ap. plied in dry weather, in order that it may attach itself efficaciously.1015. ATTACHMENT OF FISH.-Fish that are kept in globes, when they have lived awhile togetner, contract so great an affection for each other, that of they are separated they become melancholy and sullen, and are a long time before they forget the loss. A gentleman put two ruffis into a jar of water about Christmas, and in April he gave one of them away. The fish that remained was so affected, that it would eat nothing for three weeks: so that, fearing it would pine to death, the gentleman sent it to the friend on whom he had bestowed its companion. On rejoining it, it ate immediately and recovered its former briskness.
1016. TO GROW FLOWERS IN WIN-TER.-In order to attain this desirable end the trees or shrubs should be taken up in the spring, just as they are about to bud, having some of their soil carefully preserved among the roots. They must then be placed upright in a cellar until Michaelmas, when, with the addition of fresh earth, they are to be put into proper tubs or vessels, and placed in a stove or hot-house, where they must every morning be moistened with a solution of half an ounce of sal-ammoniac in a pint of rain water. Thus, in the month of February, fruits or roses will appear, and, as regards flowers generally, if they are sown in pots at Michaelmas, and watered in a similar manner, they will blow at Christmas.
1017. PRESERVATION OF VEGETA-BLES.-Any vegetables may be preserved in a strong brine, made by dissolving four pounds of salt in a gallon of water. The vegetables should be put into this, and kept quite covered with it. French beans, artichokes, olives, samphire, and barberries, are often preserved in this manner. In Holland and Germany, where large quantities of French or kidney beans are salted in every family, a machine, resembling a turnip-shear, is used for cutting them expeditiously. The sliced beans are immediately put into a cask with alternate layers of salt, and a weight being put upon them, they are pressed till they begin to ferment, slightly; the salt liquor is then poured off, and they are covered up and put into the cellar as store. Before cooking, they are steeped in fresh water, and are found to be an excellent corrective of the oily qualities of animal food.
1018. CONSUMPTION OF AGRICULTURAL PRODUCE.-A human being (English) is supposed to consume annually the produce of rather more than $3 \frac{1}{8}$ acres of land:-half an acre for bread; one-eighth for beer, cider, \&c.; one-fiftieth for vegetables; $2 \frac{1}{2}$ animal food.
1019. THINKING IN TOWN AND COUNTRY.-Lady Hervey remarks in her letters :- "In general I have observed that those who live in town think too little, and those who live in the country think too much, the one makes them superficial, the other sour."
1020. TO PRESERVE ROOTS.-These are preserved in various ways, according to the object in view. Tuberous roots, as those of the dahlia, pœnia, tuberose, \&c., intended to be planted in the succeeding spring, are preserved through the winter in dry earth, in a temperature rather under than above what is natural to them. So may bulbous roots, such as hyacinths, tulips, onions, \&c., but for convenience these are kept either loose in cool, dry shelves, or lofts, or the finer sorts in papers, till the season of planting.

## 1021. TREATMENT OF BEES NEAR

 SHEFFIELD.-In the neighbourhood of Sheffield, when the garden-flowers are nearly past, beehives are carried to the moors, that they may collect honey enough from the heath to maintain them during the winter. This removal takes place either in the case of late swarms, or poor stocks, which have but little honey, or after the season's honey has been taken from the heavier hives, without destroying the labourers; in other words, after driving them, as it is termed, out of the full hive into an empty one.1022. LOW MANTEL.PIECES.-Low mantel-pieces are much less wholesome than higher ones, because the under line of the worst air in the room is on a level with the top of the fire-place; the lower, therefore, this top is placed in a room, the deeper the upper portion of the body is immersed in the inferior air. In rooms, not well ventilated, the heads of the occupiers are in the worst and the warmest air, their feet are placed in the best and coldest. A thermometer, placed at different elevations in a warmed room, will confirm these truths.

## 1023. THE GAME OF CHESS.

The game of chess is played on a board with thirty-two pieces, of different forms, denominations, and powers, divided into two colours or parties. The chess-board contains sixty-four squares, chequered black and white. The king and his officers, being eight pieces, are ranged at different ends upon the first lines of the board, a white corner of which is to be placed towards the right-hand of each player.

The white king must be upon the fourth, a black square, at one end of the board, reckoning from the right; the black or red king upon the fifth, a white square, at the other end of the board; opposite to each other. The white queen must be upon the fifth, a white square, on the left of her king. The black queen upon the fourth, a black square, on the right of her king. The bishops must be placed on each side of their king and queen. The knights on each side of the bishops. The castles, in the two corners of the board, next to the knights; and the eight pawns, or common men, upon the eight squares of the second line.
The pieces, and pawns, on the side of each king, take their names from him, as those on the side of the queen do from her, and are called the black or white king's bishop; the king's knights; the king's castles; the king's pawns; the king's bishop's pawns; the king's knight's pawns; the king's castle's pawns; the black or white queen's bishops; the queen's knights; the queen's castles; the queen's pawns; the queen's bishop's pawns; the queen's knight's pawns; and the queen's castle's pawns. The squares are named from the pieces, viz., where the king stands, is called the square of the king; where his pawn stands, is called the second square of the king; that before the pawn is called the third square of the king; that beyond it is called the fourth square of the king; and so of all the rest.

The kings move every way, but only one square at a time (except in the case of castling), and must always be at least one square distant from each other. The king may castle once in the game, either on his own side, or on the side of his queen (viz., the castle is moved into the next square to the king; and the king moves to the square
on the other side of him, which is called castling) ; provided, nevertheless, no piece is between him and the castle; nor after this castle hath been played; nor after the king hath been moved; nor when the king is in check; nor when the square over which he means to leap is viewed by an adverse man, who would check him in his passage.

The queen possesses the moves and powers of the castle, and bishop, in a straight line, and also angularly.

The bishops move only angularly, backward or forward, in the same colour as each are at first placed, but can take at any distance when the road is open.
The knights move obliquely, backward or forward, upon every third square, including that which they stood on, from black to white, and from white to black, over the heads of the men, which no other is allowed to do.

The castles move in a right line, either forwards, backwards, or sideway, through the whole file, can stop at any square, and take at any distance when no other piece intervenes.

A pawn moves one square at a time, in a straight line forward, and takes the enemy angularly. He may be moved two squares the first move, but never backwards, and is prohibited from quitting his own file, except in case of making a capture, when he is moved into the place of the captive, and afterwards advances forward in that file.

If the square over which any pawn leaps is viewed by an adverse pawn, the pawn may take the pawn, and then must be placed in the square over which the pawn hath leaped. A pawn getting to the head of the board upon the first line of the enemy (styled going to queen) may be changed for any piece, and the piece chosen must be placed on the square at which the pawn had arrived.

The men can take the adversaries who stand in their way, provided the road lies open ; or they may decline it, and must be set down in the same squares from which the contrary men are taken.

When the adversary's king is in a situation to be taken by you, you must say check to him; by which you warn him to defend himself, either by changing his place, or by covering himself with one of his
own men, or by taking the man who assaults him; if he can do none of these things, he is check-mated, and loses the game. The king cannot change his square, if he by so doing goes into check; and when he has no man to play, and is not in check, yet is so blocked up that he cannot move without going into check, this position is what is called a stale-mate, and the game is drawn.

Some chess-players give notice when the queen is in danger of being taken, by saying check to the queen.

The board is technically called the exchequer, the squares are styled houses, the ranges of which in a straight line, from right to left, are denominated ranks, and perpendicularly from one player to the other are files.

## 1024. Directions for Playing the Game.

1. Move your pawns before your pieces, and afterwards bring out the pieces to support them ; therefore the king's, queen's, and bishop's pawns should be the first played, in order to open the game well.
2. Do not, therefore, play out any of your pieces early in the game, because you thereby lose moves, in case your adversary can, by playing a pawn, make them retire, and also open his game at the same time; especially avoid playing your queen out, till your game is tolerably well opened.
3. Avoid giving useless checks, and never give any check unless to gain some advantage, because you may lose the move if the adversary can either take or drive your piece away.
4. Never crowd your game by having too many pieces together, so as to prevent advancing or retreating your men as occasion may require.
5. If your game happens to be crowded, endeavour to free it by exchanges of pieces or pawns, and castle your king as soon as convenient; afterwards bring out your pieces, and attack the adversary where weakest.
6. When the adversary plays out his pieces before his pawns, attack them as soon as you can with your pawns, by which you may crowd his game, and make him lose moves.
7. Never attack the adversary's king

No. 11.
without a sufficient force; and if he attacks yours, and you cannot retaliate, offer exchanges; and should he retire, when you present a piece to exchange, he may lose a move. It also may sometimes be expedient to act in this manner in case of other attacks.
8. Play your men in guard of oneanother, so that if any be taken the enemy may also be captured by that which guarded yours, and endeavour to have as many guards to your piece as your adversary advances others upon it; and, if possible, let them be of less value than those he assails with. When you cannot well support your piece, see if by attacking one of his that is better, or as good, you may not thereby save yours.
9. Never attack but when well prepared, for thereby you open your adversary's game, and prepare him to pour in a strong attack upon you, as soon as your weak one is over.
10. Never play till you have examined whether you are free from danger by your adversary's last move; nor offer to attack till you have considered what harm he would be able to do you by his next moves, in consequence of yours.
11. When your attack is in a prosperous way, never be diverted from it by taking any piece, or other seeming advantage, your adversary may purposely throw in your way, with the intent that, by your taking the bait, he might gain a move which would make your design miscarry.
12. When in pursuing a well-laid attack, you find it necessary to force your adversary's defence, with the loss of some pieces ; if, upon counting as many moves forward as you can, you find a prospect of success, sacrifice a piece or two to gain your end: these bold attempts make the finest games
13. Never let your queen stand so before the king as that your adversary, by bringing forwards a castle or a bishop, might check your king if she was not there, for you could hardly save her, or perhaps at best must sacrifice her for an inferior piece.
14. Let not your adversary's knight fork your king and queen, or king and castle, or queen and castle, or your two castles, at the same time; for in the two first cases, the king being forced to go out of check, the queen or the castle must be lost; and in the
two last a castle must be lost, at best, for a worse piece.
15. Take care that no guarded pawn of your adversary fork two of your pieces : knights and castles are particularly liable to this mode of attack; also guard against either a check by discovery, or giving your adversary stale-mate when you have the best of the game.
16. When the kings have castled on different sides of the board, attack with the pawns you have on that side where the adversary has castled, advancing the pieces, especially the queen and castles, to support them ; and if the adversary's king has three parns on a line in front, he should not stir them till forced to it.
17. Endeavour to have a move in ambuscade; that is, place the queen, bishop, or castle behind a pawn, or a piece, in such a manner, as upon playing that pawn, or piece, you discover a check upon your adversary's king, and, consequently, may often get a piece, or some other advantage, by it.
18. Never guard an inferior piece or pawn with a better, if you can do it with a pawn, because that better piece may in such a case be, as it were, out of play.
19. A pawn pushed on, and well supported, often costs the adversary a piece; but one separated from the others is seldom of any value. And whenever you have gained a pawn, or other advantage, and are not in danger of losing the move thereby, make as frequent exchanges as you can.
-20. If each player has three pawns upon the board, and no piece, and you have a pawn on one side of the board, and the other two on the other side, and your adversary's three are opposite to your two, march with your king to take his pawns; and if he moves to support them, go on to queen with your single pawn ; and if he attempts to hinder it, take his pawns, and push yours to queen; that is, to move a pawn into the adversary's back row, in order to make a queen, or any other piece.
21. At the latter end of a game, each party having only three or four pawns on different sides of the board, the kings are to endeavour to gain the move, in order to win the game.
22. When the adversary has no more than his king and one pawn on the board,
and you a king only, you can never lose that game if you bring and keep your king opposite to your adversary's, when he is immediately either before or on one side of his pawn, and only one house between the kings. This must, then, be a drawn game, as your opponent cannot avoid either losing his pawn or giving you a stale-mate.
23. When your adversary has one pawn on the castle's line, with a king and bishop against a king only, and his bishop is not of the colour that commands the corner-square his pawn is going to, if you can get your king into that corner, you cannct lose that game.
24. When your game is inferior to your adversary's, and you have only your queen left in play, and your king happens to be in the position of stale-mate, keep giving cheek to your adversary's king, always taking care not to check him where he can interpose any of his pieces that make the stale: so doing, you will at last force him to take your queen, and then the game will be drawn by a stale-mate.
25. Never cover a check with a piece that a pawn pushed upon it may take, for fear of only getting that pawn for it.
26. Do not crowd your adversary's king with your pieces, lest you inadvertently give a stale-mate.
27. Do not be too much afraid of losing a castle for an inferior piece; although a castle is better than any other, except the queen, yet it seldom comes into play, so as to operate, until the end of the game; and it is generally better to have a worse piece in play than a superior out.
28. When you have moved a piece, which your adversary drives away with a pawn, that is a bad move, your enemy gaining a double advantage. At this nice game no move can be indifferent. Though the first move may not be much, between equally good players, yet the loss of one or two more, after the first, makes the game almost irretrievable ; but if you can recover the move, or the attack (for they both go together) you are in a fair way of winning.
29. If ever your game is such that you have scarce anything to play, you have either brought out your pieces wrong, or, which is worse, not at all; for if you have brought them out right, you must have variety enough.
30. Do not be much afraid of doubling a pawn; two in a direct line are not disadvantageous when surrounded by three or four others. Three together are strong, but four that make a square, with the help of other pieces, well managed, form an invincible strength, and probably may produce you a queen; on the contrary, two pawns, with an interval betiveen, are no better than one; and if you should have three over each other in a line, your game cannot be in a worse situation.
31. When a piece is so attacked that it is difficult to save it, give it up, and endeavour to annoy your enemy in another place; for it often happens that whilst your adversary is pursuing a piece, you either get a pawn or two, or such a situation as ends in his destruction.
32. Supposing your queen and another piece are attacked at the same time, and by removing your queen you must lose the piece, if you can get two pieces in exchange for her, rather do that than retire; for the difference is more than the worth of a queen; besides you preserve your situation, which often is better than a piece; when the attack and defence are thoroughly formed, if he who plays first is obliged to retire by the person who defends, that generally ends in the loss of the game on the side of him who attacks.
33. Do not aim at exchanges without reason; a good player will take advantage of it, to spoil your situation, and mend his own : but when you are strongest, especially by a piece, and have not an immediate check-mate in view, then every time you exchange your advantage increases. Again, when you have played a piece, and your adversary opposes one to you, exchange directly, for he wants to remove you; prevent him, and do not lose the move.
34. Every now and then examine your game, and then take measures accordingly.
35. At the latter end of the game, especially when both queens are off the board, the kings are capital pieces, do not let yours be idle; it is by his means, generally, you must get the move and the victory.
36. As the queen, castles, and bishops operate at a distance, it is not always
necessary in your attack to have them near your adversary's king; they do better at a distance, cannot be driven away, and prevent a stale-mate.
37. When there is a piece you can take, and that cannot escape, do not hurry ; see where you can make a good move elsewhere, and take the piece at leisure.
38. It is not always right to take your adversary's pawn with your king, for very often it happens to be a safeguard and protection to him.
39. When you can take a man, with different pieces, consider thoroughly with which you had best take it.

## 1025. APPLICATIONS TO SOME OF THE Foregoing Rules.

1. Whether you play the open or close game, bring out all your pieces into play, before you begin the attack; for if you do not, and your adversary does, you will always attack, or be attacked, at a great disadvantage ; this is so essential, that you had better forego an advantage than deviate from it; and no person can ever play well who does not strictly practise this. In order to bring out your pieces properly, push on your pawns first, and support them with your pieces, thereby your game will not be crowded, and all your pieces will be at liberty to play and assist each other, and so co-operate towards obtaining your end; and either in your attack or defence, bring them out so as not to be driven back again.
2. When you have brought out all your pieces, which you will have done well, if you have your choice on which side to castle, then consider thoroughly your own and adversary's game, and not only resolve where to castle, but likewise to attack where you appear strongest, and your enemy weakest. By this it is probable you will be able to break through your adversary's game, in which some pieces must be exchanged. Now, pause again, and survey both games attentively, and do not let your impetuosity hurry you on too far; at this critical juncture (especially if you still find your adversary pretty strong) rally your men, and put them in good order for a second or third attack, still keeping your men close and connected, so as to be of use to each other. For want of this method, and a little coolness, an almost sure victory is often
snatched out of a player's hands, and a total overthrow ensues.
3. At the last period of the game, observe where your pawns are strongest, best connected, and nearest to queen; likewise mind how your adversary's pawns are disposed, and compare these things together ; and, if you can get to queen before him, proceed without hesitation ; if not, hurry on with your king to prevent him: I speak now, as supposing all the pieces gone; if not, they are to attend your pawns, and likewise to prevent your adversary from going to queen.

## 1026. Some Other Directions by an Amateur.

1. The principal art consists in the nice conduct of the royal pawns ; in duly supporting them against every attack; and, when they are taken, supplying their places with others equally well supported.
2. The royal pawns, after the first moves, should not be rashly pushed on before your adversary's king has castled; otherwise he would castle on your weakest side.
3. Pawns on a front line, when judiciously supported, greatly obstruct the adversary's pieces from entering your game, or taking an advantageous situation.
4. When you have two pawns on a front line, neither should be pushed forward until the adversary proposes to exchange, then instead of doing that push on the attacked pawn.
5. Dispose your pawns so as to prevent, if possible, the adversary's knights from entering into your game.
6. When your pawns are separated from the centre, strive to increase the number on the strongest side; and when you have two in the centre, endeavour to unite there as many as you can.
7. One or two pawns far advanced at the commencement of a game may be looked upon as lost, unless very well supported.
8. Until the bishop's pawns have been advanced two squares, the knight should not be placed on the bishop's third square, else those pawns would thereby be hindered from supporting others.
9. So long as a direct attack on the adversary's king is not likely to prosper, strive to capture or exchange those men who would prevent it.
10. Whenever you can make an opening with two or three pawns on the adversary's king, you then are almost sure of the game.
11. If ever the strength of your game consists of pawns, strive to take the adversary's bishops, because they, much more than the castles, could prevent the advancement of your pawns.

I2. While you meditate an attack, endeavour to keep your king so situated that he may castle when you please.
13. When more than one of your adversary's men are in your power, rather in capturing them be guided by the worth each may be of at that period of the game, than by its abstract value, and act on the same principle when two of yours are so attacked that you must give up one of them.
14. Prevent your adversary from getting prematurely among your pieces, otherwise his knights and bishops, supported by the pawns, and occasionally by the queen, may decide the game, while only part of your force is engaged.
15. At the beginning of a game, guard against the adversary's king's bishop attacking your king's bishop's pawn; and as the king's bishop is a most dangerous piece to form an attack, strive to exchange your queen's bishop for it, or otherwise get quit of it as soon as you can.
16. Hinder the adversary from doubling his castles, especially if there is an opening
in the game.
17. Endeavour to move the king to a square where one of the adversary's pawns will protect him from the castle.
18. When you have a chain of pawns following each other obliquely, preserve, if possible, the leader.
19. After each move of the adversary, consider attentively what view he can have in it, and whether it disconcerts your plan; if it does, remove the evil before you proceed, else while you are only intent on the attack, you may be taken by surprise.
20. In order to overthrow the adversary's schemes, you must often play against the general rules in the defence, but seldom need act so in the attack.
21. Avoid changing the king's pawn for the adversary's king's bishop's pawn, or the queen's pawn for the adversary's queen's bishop's pawn, because the royal pawns, occupying the centre, prevent, in a great
measure, the adversary's pieces from injuring you.
22. A knight, supported by two pawns, unless the adversary can push on a pawn to attack him, will prove so incommodious that he must be taken by a piece, and you gain the advantage of reuniting the pawns.
23. Circumstances sometimes will require you to give check, even when you have not check-mate in view; as to drive the adversary's king into a worse situation, or to compel him to leave a superior piece unguardad, or to take away his privilege of castling, or to save one of your own pieces.
24. While you aim at giving check-mate, and all your pieces are employed, be very careful lest your king is check-mated by a single move of the adversary; and if ever you perceive a probability of the adversary giving you check-mate, be doubly cautious of every move; a wrong piece moved, or even a right one into a wrong square, may ultimately prove fatal.
25. By castling, a double advantage is gained at once, that of removing the king into a more secure or advantageous situation, and also bringing the castle directly into play.
26. Sometimes it is best to play the king without castling, in order to attack with your pawns on that side, and then the king's bishop's second square is usually the proper place for him.
27. If your king castles on his own side, avoid moving his knight's or castle's pawns without necessity, as they are a protection to him.
28. If the adversary's king castles on the same side of the board as yours, do not, by pushing forward your pawns, leave the king unguarded, but rather attack with your pieces.

## 1027. Maxims for the Conclusions of Games.

1. A single pawn cannot win if the adversary's king is opposed to it; but if its own king is placed before it, then the pawn may win.
2. Two pawns against one must win in most cases; but the player possessing the two should avoid exchanging one of them for his adversary's pawn.
3. A pawn, with any piece, must win in every case, except with a bishop, when the
pawn is on a castle's file, and the bishop does not command the square where the pawn must go to the queen.
4. Two knights, without any other man, cannot give check-mate.
5. Two bishops may win.
6. A knight, with a bishop, may win.
7. A castle against either a knight or bishop makes a drawn game; as also does a castle and a knight against a castle.
8. A castle with a bishop against a castle may win.
9. A castle with either a bishop or a knight against a queen make a drawn game.
10. A queen against a bishop and a knight may win.
11. A queen against a castle with two pawns makes a drawn game.
12. A castle against either a bishop or a knight with two pawns makes a drawn game; because the player possessing the castle cannot be prevented from exchanging it for the two pawns.
In order to determine what shall be a drawn game it is customary, towards the conclusion, to fix fifty more moves on each side as the number to ascertain that point.

## 1028. Laws of Chess.

1. If you touch your man you must play it, except that would expose your king to check, in which case you are only, when possible, to move the king; and so long as you keep hold, you may place the said man where you please ; but once having quitted, you then cannot recal the move; though should any men be displaced by accident those are to be restored.
2. If you touch one of your adversary's men, he may insist upon your taking it ; and when you cannot do so, then you are to move you king, provided that may be effected without putting him on check.
3. If, by mistake, or otherwise, you make a false move, the opponent can oblige you to move the king (as in the second article) ; but if he plays without noticing the said false move, neither of you can afterwards recal it.
4. If you misplace your men, and play two moves, it lieth in your adversary's power whether he will permit you to begin the game afresh.
5. When the adversary gives check without warning, you are not obliged to notice
it until he does; but if on his next move he warns you, each party must then retract his last move, and the king be removed off check.
6. Should the opponent warn you of a check without really giving it, and you have even moved your king, or any other man, you are in such case allowed to retract before the opponent has completed his next move.
7. You are not to give check to your adversary's king by any piece, which, by so moving, would discover check on your own king.
8. After your king or the castle has moved, you cannot castle; and if you attempt it, the adversary may insist that you move either the king or castle.
9. In each fresh game, the players have the first move alternately; but where the advantage of a piece or pawn is given, the player giving that advantage is entitled to the first move.
10. RASPBERRY VINEGAR.-To every pint of vinegar put three pints of raspberries; let them lie together two or three days; then mash them up, and put them in a bag to strain. To every pint, when strained, put a pound of crushed sugar ; boil it twenty minutes and skim it. Bottle it when cold.
11. PROGRESS OF THE HUMAN MIND.-The human mind considered as that of an individual, or collectively as that of an age, or a nation, is slow and gradual in its development. At times it meets with obstructions that seem to prevent its expansion, and to retard its growth. But still it is, on the whole, found to be progressive in its march, and continual in its increase. The augmentation of its ideas to-day becomes the preparation for a greater increase to-morrow. Every generation makes an intellectual advance beyond the preceding. Whatever doubts might exist on this subject, before the invention of printing, there can be no doubt that that art has not only accelerated but perpetuated the intellectual progression of man. It is the opening of a better day on the prospects of the human race; the dawn of a new era of mental improvement and intellectual acti-vity.-Fellowoes.
12. LAW.-Law is a bad thing, but chancery is worse. If a man unfortunately goes to common law, he has pain, and trouble, and vexation, coupled with constant expense, for a year or two; but should he have the misery to be involved in a chancery suit, he may make up his mind to care, and sorrow, and expense, for the rest of his natural life, with the agreeable prospect of bequeathing his calamity to his heirs.
13. INDEXES.-An index is a necessary implement, and no impediment of a book, except in the same sense wherein the carriages of an army are termed impedimenta. Without this, a large author is but a labyrinth, without a clue to direct the reader therein. I confess there is a lazy kind of learning which is only indical, wherein scholars (like adders, which only bite the horses' heels) nibble but at the tables which are calces librorum, neglecting the body of the book. But though the idle deserve no crutches (let not a staff be used by them, but on them), pity it is the weary should be denied the benefit thereof, and industrious scholars prohibited the accommodation of an index most used by those who most pretend to contemn it.- Fuller.
14. TIME.-Try what you can make of the broken fragments of time, glean up its golden dust; those raspings and parings of precious duration, those leavings of days, and remnants of hours, which so many sweep out into the waste of existence. And thus, if you be a miser of moments, if you be frugal and hoard up odd minutes and halfhours and unexpected holidays, your careful gleanings may eke out a long and useful life, and you may die at last richer in existence than multitudes whose time is all their own. When a person Eays, "I have no time to pray, no time to rend the Bible, no time to improve my mind, or to do a kind turn to a neighbour," he may be saying what he thinks, but he should not think what he says; for if he has not got the time already, he may get it by redseming it. At the instant when he ushered them on existence, God gave them a work to do, and he also gave them a competency of time; so much time, that if they began at the right moment, and wrought with suff. cient vigour, their time and their work would end together.-Life in Earnest.

## 1034. ORIGINAL POETRY.

The following pieces are by a young author, whose name is new to the public, but whose verses appear to us to evidence an amount of promise sufficient to justify us in introducing them to the notice of our readers. The author's name is Neville Wynn.

## 1035. Weep no More.

Nay, weep no more,
Though shadows o'er
Our present sunshine steal, love;
They soon will fly,
And to the eye,
Still brighter paths reveal, love.
From thee though driv'n,
I feel that heav'n
Means but reproof with kindness.
Lest bliss too sweet
Claim reason's seat,
And eyes too bright bring blindness.
When from life's field,
I bear my shield,
With victor-laurels on it :
The battle o'er,
Thou'lt love me more,
For having fought and won it.
And when in you,
Old charms I view,
With new ones set within them,
I'll deem those eyes
A richer prize,
For seeming worthier in them.
Then keep thy tears
For after years,
Distilling sweets from sorrow; As mists to night,
Leave in their flight,
The dews that deck to-morrow.
Such drops be sure,
Will grow more pure,
In thy heart's casket lighting,
And they shall gem
The diadem,
That crowns our reuniting.

## 1036. Oh! the Time when we went Maying.

Oh! the time when we went Maying, In the days when we were young;
Oh! the lanes that woo'd our straying, With new hawthorn-blossoms hung.
These delights have fled our bosoms; Maying no more tempts our feet;
And the early haythorn-blossoms, Seem to us not half so sweet.
Oh! the sorigs we sang so cheerly, Aud the stories we would tell;
Oh! the maidens cherish'd dearly, Oh! the friends we lov'd so well.
But no longer joyous-hearted,
Tale and song have pass'd away;
Friends and maidens all departed, Whither now, we may not say.

Oh ! the castles that we builded, Tall and stately, in the air,
Oh! the far-off prospect, gilded, In all colours bright and rare.
Now anear those daisied meadows, Hovels lurk in sterner sooth;
And dark clouds have warp'd in shadows, All the sunshine of our youth.

## 1037. Stars, I would be with Thee to-NIGHT.

Stars! I would be with thee to-night, My heart is vex'd and cloy'd,
With pleasures that have ceas'd to please, And joys no more enjoy'd;
I am athirst for that sweet cup, With bitters unalloy'd.
So breathe I to thee my desire, To drink at thy cool spring;
Till I forget the dreary hours Life's journey measuring;
And cleave the intervening space, With light and joyous wing.
Tell me, are ye those mystic gems, Long since seen in the skies?
When first I learnt a higher ken, Than bounded those sweet eyes;
That shed across my infant face, $\Delta$ mother's ecstacies.
Are ye the lamps of boyhood's time? When in a dreamy mood,
And restless fancies at my heart, I wander'd in the wood,
And mark'd thee glimm'ring through the trees Upon me where I stood.
Are ye the same that she and I, Saw in that fair alcove?
When on our intertwiuing forms, Thou lookedst from above,
With smiles that seem'd to omen bliss, And consecrate our love.
And when in sickness my worn frame, Hover'd 'twixt night and day,
With idle gaze, I scann'd the sky, And caught-say was't thy ray?
Sending an earnest of new hope, Unto me as I lay.
If thou'rt, indeed, that kindred throng, Long cherish'd in my sight,
Once more invoke the olden spell, My soul would own to-night,
Illume the caverns of my breast, With thy divinest light !
Oh! let me climb those quiv'ring beams, That glad the inmost sea;
Or, if too daring an emprise, For mortal that may be,
Do thou lean forward from the skies, And snatch me up to thee.
Assure me that in your bright world It may be mine to greet,
Disparted love-that in those bow'rs, Hauds have prepared a seat,
By silver streams, and thou the flow'rs, Upspringing to my feet.

And say if in their spirit home, Those dear ones gone are blest, If from their brows the world's old care Has fled-and unoppress'd, Their pilgrim steps are guided now To calm and peaceful rest?
And oh ! thou trusty sentinels, Heaven's outposts true maintain;
Nor let one earth-borne word or thought, Steal past thee charg'd with pain,
To give fond hearts that sorrow'd once, That sorrow once again.
Farewell! thy watch is nearly out, The dawn steals on apace;
When night returns again I'll wait For thee, with upturn'd face, And hail each guardian as he comes, From his abiding place.

## 1038. WIFE-BEATING-ITS CAUSE AND ITS REMEDY.

Much has been said, but to little purpose, and a great deal has been done by the infliction of punishment on man for his brutality-for cruelly beating the very creature whom, in the most sacred place, he has sworn to cherish and to protect, a brutality at which true manhood shrinks abashed. That such, however, is the case, the public prints too truly demonstrate.

A man beats what he considers his own property, the law interferes, and the magistrate punishes. Does this method tend to put a stop to such brutality? No! wifebeating still goes on, without the least symptom of diminution. Suppose that, in all instances, where the husband strikes, without the slightest provocation, his unoffending wife, is the punishment which the magistrate inflicts-be it fine or imprison-ment-is that punishment entirely confined to the aggressor ? We say no; it re-acts upon the wife, and, in many cases, too, the children become severe sufferers.
By the present method we clearly find that this offence does not diminish-that the punishment inflicted is no healing salve to the injured wife-is no bond of unity to cause father and mother to gather round and support their helpless offspring; for with what feelings does that man return to his home after punishment-are they feelings of affection for the partner he has chosen for life, the mother of his children? Let human nature, however refined, give the reply.

Much has been said, and much has been done, but the same acts are not becoming
less. The same evil, to wife and offspring, results from the present treatment.
A skilful physician, when he finds that a given medicine has no effect upon the disease of the patient, wisely resorts to another remedy. Or, are we not acting like the unskilled practitioner, who devotes his attention to the effect of the disease, without first ascertaining and attacking the cause. The weed may be plucked and plucked, but unless it be uprooted, so sure as time elapses, so sure will it spring up afresh.

But how remedy this evil-this inhuman system of female beating? What is its cause ? Whence does it arise that man can so bemean himself, Englishmen, too, whose "fair play" boast is proverbial throughout the world, as to wage a cowardly, an unequal war with a frail, helpless woman?

Does the fault lie entirely with the hus-band-or is any blame to be attached to the wife? Is it both that are in fault? Is the weed rooted in rotten education, and has it been watered and nurtured by the bad culture of parents ?

To take the popular view of the question would be to say, that these men are brutes, and that the injured women are suffering angels. But judgment calls out-Stop, reason, and sum up from thine own observation.

In our time we have witnessed many family jars, bickerings, aye, and even blows that never reached the public ear. Popular opinion says, the man, of course, was to blame, and, as regards striking, we say the same, for nothing can justify a man in beating the woman he has sworn to protect. In that command of protection lies the true source of his own happiness.
Was he entirely to blame? No! We traced much of the cause to the wife's parents, and more especially to the wife's mother, for neglecting to instruct her daughter in the wholesome duties of a wife, instead of ringing in her ears the vulgar phrase-" Work after marriage! No, no! What's the use of getting married, if you have to work ?"
But how remedy the evil that at present exists?

For the future we can point out a remedy; that is, by parents fulfilling their duty to their children-by bearing in mind
that God has entrusted to their care a gem -an immortal soul-and that they have much to answer in respect to that diamond, for its weal or woe greatly depends upon the treatment of their invaluable charge.

But what of the present evil?
We must here again draw inferences from observation.

What does that say? That punishing a husband punishes a wife, punishes a child, and, too often, tends to snap asunder the bond that should unite them together.

What is to be done, then? Let the magistrate counsel not only the husband but the wife. Let him tell her the influence a clean fireside, a smiling face, a happy home, has upon all that bears the name of man-that, by such means, drunkards are reclaimed. It may take months and months, but the clean fireside and frugal supper, with good humour and smiles to digest it, will be certain, sooner or later, to triumph over a riotous tap-room.-Head and Heart.

## 1039. ANECDOTES OF A JAY.

A late highly-respectable attorney in the county of Somerset, possessed a jay which was an admirable mimic. It could imitate almost any sound that it heard produced by another animal. For instance, it could so perfectly mimic the cackling of chickens, that the lady of the house hearing him, has desired the servant to buy the fowls that were "noising" at the door. He would with equal success imitate the quacking of ducks. But what is still more surprising, and which I would not venture to relate but on the best authority, and that of a living witness, this bird could imitate the neighing of a horse. He did it so well, that a servant has been known to run into the yard, thinking that a stray horse was there, and has found that he was deceived by the bird.

A clerk of this attorney had a very singular laugh, and when laughing he used to put up his shoulders, and raise his eyebrows and his hair, in a manner that may be best understood by attempting the same thing. It is a fact that this bird not only imitated with success the clerk's laugh, but used also, at the same time, to raise the feathers of his head in imitation of the clerk's hair : this he did whenever he had
a bird's-eye view of the young man, to his great annoyance, and the great amusement of those who were present.

If this bird heard any new sound, as produced by a whistle, \&c., he would not attempt to mimic it whilst any one was within sight; but having listened attentively to it, with his head on one side, he would attempt an imitation if he thought he was unobserved. If he succeeded, he would display his new acquirement to the first person who passed him.

The jay's fate was untimely. He escaped from his cage, and perched on a tree, from which he could not be dislodged by any gentle means. A man servant, who, by the bye, was very fond of the bird, took a gun to frighten him from his station by discharging it; but either not being aware that there was shot in the piece, or by some unaccountable awkwardness, he laid the jay dead at his feet.

The bird at the time of his death was about three years old. It might be remarked that it was in the habit of hearing the neighing of horses, as its cage was hung up not far distant from a paddock.Jesse.
1040. TO MAKE YEAST.-Take one handful of hops, one apple, one potatoe, sliced, boil in two quarts of water; while hot, strain off, and stir in wheat flour until it is thick as paste; coarse flour is best. Grate one large apple, one large potatoe, place them in a gallon jar, pour in the batter; when sufficiently cold, add a little yeast ; in twelve hours it will be fit for use.
1041. ILL BREEDING, says the Abbè Bellegarde, is not a single defect; it is the result of many. It is sometimes a gross ignorance of decorum, or a stupid indolence, which prevents us from giving to others what is due to them. It is a peevish malignity which inclines us to oppose the inclinations of those with whom we converse. It is the consequence of a foolish vanity, which hath no complaisance for any other person ; the effect of a proud and whimsical humour, which soars above all the rules of civility; or, lastly, it is produced by a melancholy turn of mind, which pampers itself with a rude and disobliging behaviour.Fielding.

## 1042. EIGHT OUT-OF-DOOR GAMES

 FOR THE FINE WEATHER.Leap-frog.-This is a game exclusively for boys. As the name indicates, the players, in overing the bent backs of each other, assume the attitude of a frog. Any number, from two to fifty, may join in the game. Having agreed together who shall give the first back, that player proceeds a few paces forward, and stooping his head and shoulder, rests his hands upon his knees, or maintains his position, while the others over him, by folding his arms across his breast. The back should be firm and steady, without flinching-as in yielding too much to the pressure of the leaper both players are apt to be upset, and hurt. As soon as one has cleared the first back, he proceeds to make a back himself for the next, and the game lasts just as long as the players choose. It is a fine healthy sport, and bracing to the limbs.
1043. Fly the Garter.-This is a little different to leap-frog. A line, called "a garter," has to be traced on the ground, at which one of the players makes a back with his side to the line. The other players then begin overing the back until all of them have done so. The last one, upon alighting, has to cry "foot it," which means that the "back" has to remove a foot's distance from the garter. The "foot" here alluded to is the measure made by placing the heel of the right foot to the side of the left, moving the left foot to the toe of the right, and then shifting the right foot, so as to resume the original position. The other players then re-commence overing. If any of them fail to go over when they have once placed themselves in position with the hands on the "back," they are down; or if, in over. ing, they stand short of the distance-i.e., within the garter, they are down. When all have overed, "back" foots it again, and so on. It should have been previously settled how many feet are the outside limit to be leaped. If all the boys succeed in overing at the proper distance, the first back is still down, and the game has to be played over again at his expense.
1044. Touch. - This is best played in a court-yard, or in some limited space. One is appointed (by lot or otherwise) "touch,"
and all he has to do is to run after, and
touch with his hand-sticks or handker. chiefs are not allowed-any of the others, who then becomes "touch" in his turn. It is sometimes the rule that the person touched shall not immediately retaliate upon the person who caught him. This privilege, however, ceases directly the sport has once again begun.
1045. Whоор.-All the players meet at a spot called "home," and one is selected by lot to be the first to hide. When he has done so to his own satisfaction, he calls out "whoop," and the rest sally forth to find him. Whoever find him, calls out "whoop," and the hider then rushes forth from his concealment, and endeavours to catch one of the players before he reaches home. The one he succeeds in catching has to carry him home upon his back. It is then the turn of the boy who discovered the first hider to hide himself, and the game recommences as before.
1046. I SPY I.-This is something like the preceding. Sides are chosen, and one party remains at "home," when the rest go and hide themselves. When this is done, a player of the hiding party (appointed specially for the purpose) calls out "warning," and then secretes himself. The other party then sallies out in search of the hiders, and as soon as one is found, the finder cries out "I spy I." But if before this is accomplished two of the out-party succeed in reaching home unperceived, they are entitled to call the rest home by the cry "all home ;" and they may go out again, having won the first game. The seeking party must spy out two of the hiding party to entitle themselves to the game.
1047. Egq-hat.-The players select a wall, and against the foot of the same place their hats or caps in a row. One then commences throwing from a prescribed distance the ball into any of the hats he may select. The player into whose hat the ball is pitched has to snatch out the ball from his hat, while the rest take to their heels and run. Standing by his hat, he then aims at the boy who is nearest, or presents the fairest mark for his ball. Failing to hit any one, the aimer is disgraced and scores a bad mark, which is usually a small stone thrown into his hat. When the player has three of these stones in his hat, he is made to stand out, and await his pun-

## A FAMILI REPOSITORY.

ishment. The game is thus repeated. The player who is longest in may, at the end of the game, punish the others by aiming the ball at their open palm set against the wall.
1048. Tom Tiddler's Ground.-A line is drawn on the ground or floor, or any mark, such as the edge of the pavement, or grass-plot, is chosen for the boundary of Tom Tiddler's ground. This Tom Tiddler is supposed to be an ogre, of an exclusive, or cross-grained temper, and very "tenacious" of his rights of property. The players, one by one, venture over the boundary, calling out, as they do so, "Here I am on Tom Tiddler's ground, picking up gold and silver." The moment any one passes the boundary Tom Tiddler rushes forward to touch the intruder. If he succeeds in doing so before said intruder repasses the line, that one takes the place of Tom Tiddler. The game may be made very lively by good players. Several intruders at once are seen rushing about, and Tom will have his work to do to catch them if they are nimble, and by the rules of the game he is forbidden to cross the line in order to do so. At the commencement of the game, it is usual to elect the first Tom Tiddler by some such plan as the following:-The players stand in a ring, and one counts "one," "two," "three," up to twenty-one, touching each person as the number is pronounced; the player who is "twenty-one" is Tom Tiddler : or, standing in a circle, instead of the mere counting of twenty-one, these words are said-the counter touching a player at each syllable:-

Eee-ner deen-er diner dust,
Cat-ler whee-ler wyl-er wast,
Spit spot must be done,
Twidd'lum twadd'lum tiventy-one.
The player who is touched at the monosyllable " one," is Tom Tiddler.
1049. Follow my Leader.-This is a game which may be plaved at all times of the year, and under almost any circumstances. One is elected leader, and the others have to imitate whatever he does. Thus if the weather be fine, a:l excursion through the meadows, or around the gardens and plantations, may be adopted, or otherwise the game may be played in doors. A skilful leader should be selected, and all dangerous or rude things should be carefully avoided; without the adoption of any such
an infinite variety of actions may be selected-such as motions with the hands, arms, or legs, grimaces, imitations of the voices of birds or beasts, the noises of a railway train in motion, \&c., \&c., \&c.
1050. Cork, Cardboard, or Pith Dancers.-Famous fun may be extracted from the fabrication of little figures-of sailors, the old conventional, T. P. Cooke, sailor of the last war with FranceHighlanders, or dancing dervishes. A little ingenuity is alone necessary. You cut the head and bust of the desired figure out of the upper part of the cork, pasteboard, or pith, mark out the features and dress, painting them with the ordinary water colours; into the sides you insert a pair of arms, and for legs procure four stout hog's bristles, and place them at the four angles of the lower part of the figure. The figure then is to be set on the sounding-board of a piano-forte, and a lively tune struck up, when your sailor, dervish, or Highlander, will dance a most original step, and prove most diverting.
1051. Another Method.-Cutoutin card board, or thin wood, such as is used in making hat and bonnet boxes, your figure down to the waist. Suppose, in this instance, it is a Highlander ; make little Highland stockings of pasteboard, marking them crosswise, and finishing them by a touch of black, to represent brogues. You make at the back of the figure two loops of tape; into these the two first fingers of the right hand are thrust; then draw on to the ends of the same fingers the pasteboard stockings. The bare part of your fingers thus represent, in a very droll manner, the clansman's knees. Now set your Scot dancing; the more nimbly your fingers move, the more diverting the experiment will be.
1052. Tee-to-tum. - A tee-to-tum is easily made-they are procurable at any toy-shop or turnery warehouse for a mere trifle, but the best way is always, if possible, to make your own toys. Take a piece of hard wood, (box, for instance), or a bit of ivory or bone, and make of it a hexagonal figure of about three-quarters of an inch in depth, and an inch and a quarter across; upon each of the six sides, which should be nicely smoothed, mark the numbers you choose, such as $1,6,3,4,2$, and blank. Exactly in the centre pierce a hole for the
insertion of the handle and peg. These you may make as ornamental as you please. Then spin. The side which falls uppermost when the tee-to-tum has exhausted its motive power, and tumbles to earth, is scored to the spinner, and the next player takes his turn. Any number above twelve may be game. The first that scores twelve wins. There is another way of using the tee-to-tum. It may be made a comical fortune-teller. Upon the six sides you write as many various fates, or fortunes, as death, woe, want, delight, drivelling, ease, penury ; or characters, as brave, cowardly, proud, silly, good, dummy. The result of a good spin is of course supposed to indicate perfectly the fortune, or character, of the spinner.
1053. Whirligigs.-These are made by fastening a peg through the centre of a but-

whirligig.
ton mould, and spinning them round rapidly upon a table or the floor. The peg should be firmly fastened through the cen-


HIGHLANDER.
tre of the mould, but should not be too much pointed, lest it scratch the cloth upon
which it is spun. If a number of these are made, and set spinning at once upon the table, the effect is pretty. But a great improvement upon this idea is to dress your whirligig like a dancing dervish, an Highlander, or an opera dancer, who may be made to appear as if sustaining themselves upon one leg, or upon both legs brought closely together. We have annexed some examples to serve as hints to our little friends of a constructive ability.


## OPERA DANCER.

1054. A Posing Arithmetical QuesTION. - While the whirligigs, or dancing Scotchmen, are careering about the board, it will be as well to propose to the little ones of the company the following question; which, although simple and transparent enough to be seen through by almost any one, has been known to puzzle very much even adult calculators. Supposing a man is thirty years of age when his little boy attains his first anniversary; he, of course, is just thirty times as old. When the father is sixty, the lad will be thirty, consequently he will be only twice as old. When the son is sixty, the father will be ninety, and therefore only one-third older. than the son. When the son is rinety, the father is one hundred and twenty, and therefore only one-fourth older. Now it would appear that the son is evidently gaining upon the father. The question is, supposing it possible for them both to live long enough, how old would the father be when the son overtook him? We can easily imagine the grave argumentative looks and Bidder-like brow-knittings of the younger children as they seize their slates
and commence calculating this difficult sum. The proposer of the question should be careful, however, to keep his or her countenance, let the gravity of the would-be Newtons ever so mirth-provoking.
1055. The Rabbit on the Wall.This, although it may appear a trifling sport, demands skill in its performance. It may be made very amusing to the little ones by the elders of the family circle. Every one must remember Wilkie's admirable picture, representing a family group engaged in the game. The diagrams show how the hands and fingers have to be held. Take care that you have a good strong light, and that your shadows are projected on to a smooth surface. Fig. 1


Fig.1.
is meant to show a fox. The operator should bark like a fox, while th fingers


Fig. 2.
work to represent the action of the animal's mouth. Fig. 2 is the proper ar-


Fig. 3.
rangement for a rabbit. The hand in Fig 3 will give you a bird feeding. The
space between the first and second fingers is for the eye, and the bird may be made to appear as if eating, by means of the left hand, with a nut or piece of biscuit in it.
1056. A Batch of Puzzling Matters. -The Wonderful Number Nine.-It is a real cause for wonder that the arabic numeral 9 has a property unknown to any other, and it will be found very amusing to point this out, either with or without a slate or paper. Thus twice 9 is 18 . Now, if we add the degits 1 and 8 together, they will make 9. Three times 9 are 27. Add 2 to 7 , and the result is 9 . Four times 9 are $36: 3$ and 6 are 9 . Six times 9 are 54:5 and 4 make 9 . Seven times 9 are 63 : and 6 and 3 are 9. Eight times 9 are 72: 7 and 2 are 9 . Nine times 9 are 81: and 8 and 1 are 9.
1057. Profit and Loss.-A man bought ninety-six oranges at the rate of three for a penny ; and ninety-six at two a-penny. He sold them again at five for twopence. Did he gain or lose? Solution: He lost. The ninety-six oranges, at three a-penny, cost him $2 s .8 d$.; and the ninety-six, at two a-penny, $4 s$. : in all, $6 s .8 d$. At five for twopence, they would produce 6s. $4 d$. He would have two oranges left, and would be minus about $3 \frac{1}{2} d$.
1058. A QUERY.-What is the difference between six dozen dozen, and half-a-dozen dozen?
1059. Solution.-Seven hundred and ninety-two : the first being eight hundred and sixty-four, the second seventy-two.
1060. Another.-Many little folks are puzzled by this question: Which is the heaviest-a pound of lead, or a pound of feathers?
1061. The Wolf, the Goat, and the Cabbages.-Suppose a man have a wolf, a goat, and a hamper of cabbages on the brink of a stream: he wishes to cross the stream, but his boat is so small that it will hold only himself and one of the three articles under his care. He must, therefore, carry them over one by one. How must he act so that the wolf shall have no opportunity of devouring the goat, or the goat of eating the cabbages ?
1062. Solution.-He first carries over the goat; he then returns, and takes the wolf; he leaves the wolf on the other side, but brings back the goat; he now takes over

THE CORNER CUPBOARD:
the cabbages, and once more comes back to fetch the goat. Thus the wolf is never left with the goat, nor the goat with the cabbages.
1063. Seven in Two.-Cut a piece of cardboard, or paper, in the form of a horseshoe (Fig. 4), and desire one of the company, in two cuts, to divide it into seven pieces.


Fig. 4.
1061. Solution. - Cat across from $c$ to $b$; this will divide the figure into three pieces: then place the two ends by the side of the upper part (as in Fig. 5), and cut across


Tig. 5.
from $c$ to $d$. The horse-shoe will then be cat into seven pieces.
1065. The Square Hole and Round Stopper.-A year or two since it was considered very witty to say that, in certain departments of the State, all the square stoppers had got into round holes, and all the round stoppers into square holes. Our young readers may have heard the remark made, and wondered at it. But now let us see how a smith could make a square hole with a round file, and fill up an oval hole with a round stopper.
1066. Solution.-A piece of thin metal, such as tin, being doubled, by applying a round file to the double edge, and filing a half square gap, on opening the metal, a square will appear. Also, if two corners and an edge at the end of an iron chest be filed away with a round, or any other file, there will be an exactly square hole left. Further, if any cylindrical body be cut obliquely, the plane of the section will be an oval; and hence a round body, situated
obliquely in an oval hole, will completely
fill it.
1067. The Oyster Wager. - Two gourmands eat oysters for a wage $r$, who should eat the greatest number. One eat ninety-nine ; and, thinking he had enough, left off. The other eat a hundred, and won. How many did the winning, gour-
mand eat?
1068. Solution.-100.
1069. The Variable Truss of Hay. - A truss of hay, weighing but half a hundred weight in a scale, weighed two hundred weight stuck upon the end of a fork, carried upon farmer Hodge's shoulder. How do you account for that?

1069*. Solution. - The fork was as a steel-yard; Hodge's shoulder as the fulcrum sustaining the burthen between the two powers acting at both ends of the fork.
1070. A Puzzle in French ; or, Eighteen Words in Twenty-three Letters. - What do the following letters, pronounced in the order in which they stand, and as a Frenchman would utter them, signify :-
lnneopyliavqliattliedcd. 1071. Solution.-Hétène est née aur pays grec, ette y a vecu, elle y a tété, elle y est
décédée.
1072. The Sheep Fold.-This is an excellent puzzle. Few children will believe at first that the answer is correct, but after a moment's reflection they will acquiesce. A farmer constructed a pen of fifty hurdles, capable of holding a hundred sheep only ; supposing he wanted to make it sufficiently large to contain double that number, how many additional hurdles would he have occasion for?
1073. Solution. - Two. There were twenty-four hurdles on each side of the pen-a hurdle at the top and another at the bottom - so that by moving one of the sides a little back, and placing an additional hurdle at top and bottom, the size of the pen would be exactly doubled.

## 1074. CHAPPED HANDS.-Vinegar,

 from the vinegar plant, is a most effectual cure for chapped hands. It is momentarilypainful, but that is all.


No. 1.


No. 2.

DIAGRAMS (EXACT SIZE) FOR A PATCHWORK TABLECLOTH.
1075. THE UTMOST EXPENSE OF DINING. - Some choice spirits, to the number of five-and-twenty, agreed to dine at White's, and the orders were-" Get a dinner as expensive as you can possibly make it." Tbis was punctually performed: and, to their great surprise and mortification, they found that the most luxurious dinner amounted to no more than $£ 10$ a man. This served to convince them that eating was a mean, paltry enjoyment, and only fit for cits and aldermen, to whom they left it because it cost so little, and therefore confessed the supremacy of gaming, which they embraced as their sumum bonum for the contrary reason.Hall's Select Letters.
1076. QUICK MADE BLACKING FOR SHOES.-Beat up two eggs, add a teaspoonful of alcohol, a lump of sugar, and ivory black to thicken. Let it stand for a day to harden before it is used. It should be laid on and polished like leather blacking.
1077. DREAMING MADE USEFUL.
-Beattie says: "The view I have taken of dreaming is new so far as I know. I have attempted to trace up some of the appearances of that mysterious mode of perception to their proximate causes, and to prove that it is, in many respects, useful to the human constitution. On all subjects of this nature I have constantly received more information from my own experience than from books."
1078. DESTRUCTION OF SNAILS.M. Em. Rousseau had applied common salt as a manure to a small piece of garden and remarked that when snails had come in contact with the salt they quickly died. Wishing to confirm the fact, he strewed the salt upon the ground, and placed a number of snails amongst it; all those which came out of the shells and touched the salt immediately threw out a greenish globular froth, and in a few moments were dead.


PATTERN FOR A PATCHWORK TABLECLOTH.
1079. Materials.-Cloth ; cobalt, light maroon and black. The white crosses are composed of four pieces of the cobalt cloth, all cut out in the No. 2 shape; the dark crosses are cut out of the black cloth, shape No. 1; those shaded lighter, the same way, but cut out of the maroon. After the white crosses are sewn together, there should be four lines, in chain stitch, of black purse silk worked over the seams in the centre. The border should be one of the two given; the edge black, the triangles maroon, and the diamonds blue, if No. 1.-the edge blue and maroon, the triangles black, and the other pieces alternately blue and maroon, if No. 2.
1080. BELL RINGING.-The changes on seven bells are 5,040; on twelve, $479,001,600$, which it would take ninety-one years to ring at the rate of two strokes in a second. The changes on fourteen bells could not be rung through at the same rate in less than 16,575 years.

## 1081. RESTORING FADED SILK.

 Bethollet, in his "Elements of the Arts of Dyeing," makes the following observa-tions:-"Ink turns blacker by exposure to the air, because the oxygen that the gallnut attracts from the iron is insufficient to produce in it the requisite degree of combustion, which is effected by additional oxygen from the atmosphere. Ink, made with a large proportion, turns yellow, because the iron, not being saturated with the astringent matter, absorbs the oxygen. Hence, infusion of galls will restore the legibility of faded writing, as well as Prussian alkali.1082. MEDLAR JELLY.-Take medlars, when they are ripe, wash them, and put them into a preserving pan, with as much water as will cover them; let them simmer slowly till they become quite a pulp; then strain through a jelly-bag, and to every pint of juice add three-quarters of a pound of loaf sugar ; boil one hour, and then put into pots for use.


PATTERN FOR A PATCHWORK INVALID OR DRAWING-ROOM SOFA QUILT.
1083. Materials.-Rose-coloured, and rather dark, warm, grey silk, or satin (satin would be best), and puce coloured velvet. The white circles are composed of eight pieces of the rose-colour, of No. 2 shape; the shaded circles the same way, but cut out of the grey; the triangular and square pieces are of puce velvet, and the large octagons, rose-colour and grey satin, alternately, according to the shading.
1084. DANIEL LAMBERT, at forty years of age, weighed 52 stone 11lbs. His coffin was built upon two axles and four clog wheels. The window and part of the wall of the room in which he died (on the ground floor) being taken down, he was drawn out with ropes by eight men. The coffin was six feet four inches long, four feet four wide, two feet four deep; it contained one hundred and twenty-six superficial feet of elm. A gradual descent of twelve yards was made to the grave, and the coffin wheeled down.
1085. AROMATIC PASTILES.-Beat and sift fine a pound of the four gums left after the compounding of honey-water ; one pound also of the ingredients left from the spirit of benjamin; one pound of the best sealing-wax, and one pound of gum benzoin ; dissolve some clear gum-arabic in a quantity of rose-water, of a pretty thick consistency, and add to it sixty drops of spirit of musk; mix the whole together, so as to make a pretty stiff paste, which make up into small cones or balls; dry them thoroughly before they are put away, otherwise they will become mouldy.
1086. RASPBERRY JAM.-Reduce ripe dry raspberries to a pulp, over which strew their own weight of pounded loaf-sugar, and add half the weight of white currant juice. Boil over a clear slow fire for half an hour, skim them well, and tie down in pots, covered with brandied paper. The fruit should not stand long after it is gathered, and the sugar should be strewn over them immediately.


DIAGRAMS (EXACT SIZE) FOR AN INVALID OR DRAWING-ROOM SOFA QUILT.
1087. LIVE FOR SOMETHING. Thousands of men breathe, move, and live -pass off the stage of life, and are heard of no more. Why? None were blessed by them; none could point to them as the means of their redemption; not a line they wrote, not a word they spoke could be recalled, and so they perished. Their light went out in darkness, and they were not remembered more than the insects of yesterday. Will you thus live and die, O man immortal! Live for something. Do good, and leave behind you a monument of virtue, that the storms of time can never destroy. Write your name, by kindness, love, and mercy, on the hearts of thousands who come in contact with you year by year, and you will never be forgotten. No; your name, your deeds, will be as legible on the hearts you leave behind, as the stars on the brow of evening. Good deeds will shine as brightly on the earth as the stars of heaven. -Dr. Chalmers.
1088. MEDICAL VIRTUES OF THE SPIDER'S WEB.-Dr. Jackson, in his work on fever, pronounces that the web of the spider prevents the recurrence of febrile paroxysms more effectually than bark or arsenic, or any other remedy employed for that purpose. It is administered in pills of five grains every fourth or fifth hour, the patient being previously prepared by the usual evacuants. It is said to be useful also in spasmodic affections of various kinds-asthma, periodical head-aches, and general irritability; also, as an application to ulcerated and irritable surfaces. The web should be that of the black spider, found in cellars and dark, damp places.
1089. TO PERFUME CLOTHES. Take of oven-dried best cloves, cedar and rhubarb-wood, each one ounce; beat them to a powder, and sprinkle them in a box, or chest, when they will create a most grateful scent, and preserve the apparel against
moths.
1090. GRAVY SOUP.-Take one pound of flour, and dry it quite brown in the oven ; then mix it with cold water, and put it into your stock (six quarts), with two spoonsful of salt, and one of pepper ; take four good-sized onions, two carrots, one turnip, one ounce of allspice, and put them into a stewpan (with one ounce of butter and a little thyme, and marjoram), until they become a dark-brown colour ; then put them into your stock, and let it boil for one hour, and then put it through a sieve, and serve with fried bread, cut as dice.
1091. PEA SOUP.-Wash a quart of split peas, and put them into a cloth; when boiled tender, rub them through a sieve into your boiling stock (six quarts); take six onions, two bayleaves, one ounce of allspice, three sprays of thyme, or three of potted marjoram ; put them all into a stewpan, with one ounce of butter, until they get a brown colour; then put them into your stock and boil for ten minutes; then put it through your sieve, and let it boil ten minutes more, and serve with mint and with toast, cut into squares.
1092. GREEN PEA SOUP (Four Quarts).-Put two quarts of green peas into a stewpan, with two quarts of good stock and a quarter of a pound of butter, four onions, two leeks, and a spray of thyme; let all boil well; then mix a quarter of a pound of flour to thicken it, one spoonful of salt, and half a spoonful of pepper; boil all together for five minutes, rub it through a sieve, then put it into another stewpan, and boil five minutes, and then it is ready for use. Serve with fried bread, cut as dice.
1093. MACARONI SOUP.-Take four onions, two carrots, and one turnip, cut them into thin slices, with one ounce of butter and a little sweet herbs, and one ounce of allspice; put them all into a stewpan, until they become a nice brown; then put them into your stock (four quarts), and let boil for half an hour ; then have ready one pound of dry flour, and mix it with cold water, with two spoonsful of salt and one of pepper ; then strain it through a sieve, and let it boil five minutes ; then have ready half a pound of macaroni, well-boiled; put it into the stock and serve.
1094. GROUSE SOUP.-Take four
grouse, and boil them until tender ; then take the best part of the birds and cut up into small dice, and take the inferior, and pound it very fine, so that it will go through a sieve into the stock; take six onions, three carrots, two turnips, three bayleaves and six cloves, one ounce of allspice, a little thyme and marjoram, with two ounces of butter ; put them all together into a stewpan, until they become a nice brown ; then put them into your stock, and let boil for one hour ; then have nearly two pounds of dry flour, and mix it with cold water, and put into your stock; let it boil for ten minutes; then strain it through a sieve, and then put your meat in, boil up and serve.
1095. HARE SOUP.-Take one hare, and boil in your stock (six quarts) until tender, then take it out and cut it up into small square dice, and get six good-sized onions, and three carrots, with one turnip; cut them also into small dice, and put them into a stewpan, with one ounce of butter, three sprays of thyme, three sprays of notted marjoram, and one ounce of allspice; let them get a brown colour, then put them all into your stock ; take two pounds of flour, and dry it in the oven until it is a brown colour, then mix it with a little cold water, put it into your stock, and let it boil for ten minutes ; then put it through your sieve, and add two spoonsful of salt, one of pepper; then put your meat in, and serve very hot.
1096. VERMICELLI SOUP. - Take four onions, two carrots, and one turnip; cut them into thin slices, with one ounce of butter, and a little sweet herbs, with one ounce of allspice ; put them all into a stewpan until they become a nice brown; then put them into your stock (six quarts), and let boil for half an hour ; then have ready one pound of dry flour, and mix it with cold water, with two spoonsful of salt and one of pepper; then strain through a sieve, and let boil for five minutes; then have ready half a pound of vermicelli, well boiled; put it into the stock, and serve hot.
1097. ONION SOUP.-Brown half a pound of butter, with a little flour ; take care it does not burn; when it has done hissing, slice a dozen of large onions, fry them very gently until tender; pour to them, by degrees, two quarts of boiling water, shaking the pan well round as it is
poured in, and also a crust of bread; let it boil gently for half an hour ; season it with pepper and salt; take the top of a French roll, and dry it at the fire, put it into a saucepan with some of the soup, to soak it, then put it into the tureen; let the soup boil some time after the onions are tender, as it gives the soup a great richness; strain it off, and pour it upon the French roll.
1098. BROWN SOUP, WITHOUT MEAT.-Put into a clean saucepan three quarts or more of water, with raspings sufficient to thicken it; two or three onions cut across, some whole pepper, and a little salt ; cover it close, and let it boil about an hour and a-half; strain it off through a sieve; then have celery, endive, lettuce, spinach, and other herbs, not cut too small; fry them in butter; then take a clean stewpan that is large enough for the ingredients; put in a good piece of butter, a dust of flour, and keep stirring it till it is of a fine brown, then put in the herbs and soup; boil it till the herbs are tender, and the soup of a proper thickness; put the soup into a tureen, and send it to table; have some fried bread in a plate, and some in the soup, if agreeable.
1099. WHITE SOUP, WITHOUT MEAT.-Put into a clean saucepan two or three quarts of water, the crumb of a twopenny loaf, with a bundle of sweet herbs, some whole pepper, two or three cloves, an onion or two cut across, and a little salt; let it boil covered till it is quite smooth; take celery, endive, and lettuce, only the white part; cut them into pieces, not too small; boil them, strain the soup off into a clean stewpan; put in the herbs, with a good piece of butter stirred into it till it is melted; then let it boil for some time till it is very smooth; if any scum arises, take it off very clean. Soak a small French roll, nicely rasped in some of the soup, and send it to table.
1100. MILK SOUP.-Take two quarts of new milk, with two sticks of cinnamon, a couple of bayleaves, a very little salt, and a very little sugar; then blanch half-a-pound of sweet almonds while the milk is heating, beat them up to a paste in a marble mortar; mix them by degrees with some milk; while they are heating, grate the peel of a lemon, with the almonds, and a little of the juice; then strain it
through a coarse seive, and mix it with the milk that is heating in the stewpan, and let it boil up; cut some slices of French bread, and dry them before the fire; soak them a little in the milk; lay them at the bottom of the tureen, and then put in the soup.

## 1101. OXTAIL SOUP. - Cut up two

ox-tails, separating them at the joints, and let boil till tender; then pass them through a sieve, and take six onions, three carrots, three turnips, three bayleaves, and two ounces of allspice, three sprays of thyme, and three of marjoram ; put all together in a stewpan, let them get brown, then put them into your stock, and let it boil for an hour; have ready two pounds of dry flour, well mixed with cold water, put that into the stock, and two spoonsful of salt, also one spoonful of pepper ; let it boil for ten minutes, then pass it through a sieve, and put the tail in; it is then ready for use.
1102. BEEF BROTH.-Take a leg of beef, break the bone in two or three places, put to it a gallon of water, two or three blades of mace, a little parsley and a crust of bread; boil the beef very tender, strain the broth, and pour it into a tureen; if agreeable, the meat may be put in with it ; toast some bread, cut it into squares, and put it in a plate.
1103. STRONG BEEF BROTH (to keep.) - Take part of a leg of beef, and the scrag end of a neck of mutton, break the bones in pieces, and put to it as much water as will cover it, and a little salt when it boils; skim it clean, and put into it a whole onion, stuck with cloves, a bunch of sweet herbs, some pepper, and a nutmeg quartered; let these boil till the meat be boiled in pieces, and the strength boiled out of it; strain it out, and keep for use.
1104. BEEF DRINK.-Take a pound of lean beef, take off the fat and skin, cut it into pieces, and put it into a gallon of water, with the under-crust of a pennyloaf, and a very little salt; let it boil till it is reduced to two quarts; strain it off, and it is a very good drink. If it is for very weak stomachs it must be weaker.

## 1105. SCOTCH BARLEY BROTH. -

 Take a leg of beef, and chop it all to pieces; put to it three gallons of water, a crust of bread, and a carrot; let it simmer very slowly, till it is reduced to half the quan.tity; then strain it off, and put it into a pot, with five or six heads of celery, cut small; half a pound of barley, a bunch of sweet herbs, some parsley, cut small; an onion, and some marigold; let it boil an hour ; then take a large fowl, put it into the broth, let it boil till the broth is very good; then send it to table, with the fowl in the middle. Before it goes to table the sweet herbs and onions must be taken out. This broth is sometimes made with a sheep's head, instead of beef; the head must be chopped to pieces. The broth is very grood without the fowl.
1106. VEAL BROTH.-Stew a knuckle of veal with four or five quarts of water, two ounces of rice or vermicelli, a little salt, and a blade of mace.
1107. MUTTON BROTH.-Boil the scrag in between three and four quarts of water ; skim it as soon as it boils, and put in a carrot and turnip, a crust of bread, an onion, a small bunch of herbs; let these stew ; put in the other part of the neck that it may be boiled tender ; when done enough, take out the mutton, strain the broth, put the mutton in again with onions and a little parsley chopped; boil these about a quarter of an hour ; the broth and the mutton may be served together in a tureen, or the meat in a separate dish ; do not send up the scrag unlesss particularly liked. Some do not like herbs. The broth must then be strained off. Send up mashed turnips in a little dish. The broth may be thickened either with crumbs of bread or oatmeal.
1108. Another, for Sick People.Take a pound or two of the chump end of a loin of mutton; take off the skin and the greatest part of the fat, and all the suet from the under part; put it into a saucepan, with a quart of soft water to a pound of meat, a little salt and upper crust of bread, a blade of mace, and a little whole pepper; skim it very clean, and let it simmer an hour ; pour the broth clear off, and send it to table; the mutton will be fit to eat. Sauce-mashed turnips, but do not boil the min the broth.
1109. THINGS IN SEASON IN OC-TOBER.-Meat. - Pork, Lamb, Mutton, Beef, Veal, Doe Venison.

Poultry.-Turkies, Geese, Pigeons, Pullets, Fowls, Chickens, Wild Ducks, Teal,

Widgeons, Larks, Woodcocks, Snipes, Hares Pheasants, Partridges, Rabbits.

Fish.- Salmon Trout, Smelts, Carp, Tench, Doree, Berbet, Holobet, Brill, Gudgeon, Pike, Perch, Lobsters, Oysters, Muscles, Cockles.

Vegetables. - Cabbages, Cauliflowers, Brocoli, Savoys, Sprouts, Carrots, Turnips, Potatoes, Parsnips, Onions, Leeks, Eschalots, Celery, Endive, Beets, Mushrooms, Lettuce and small Salad, all sorts of Herbs.

Fruit. - Pears, Apples, Peaches, Figs, Medlars, Quinces, Grapes, Walnuts, Filberts, Nuts.
1110. THE BANANA AND COCOANUT TREES.-The banana is bountiful to myriads in the East. It is calculated that one thousand square feet of banana plants will produce $4,000 \mathrm{lbs}$. of its nutritive fruit ; while the same space would only grow 33 lbs. of wheat, and 991 lbs . of potatoes. The fruit may be collected eleven months after the sucker is planted; and when the fruit is cut off, its stalk will put forth a sprout, which bears again in three months. Of the banana tribe, the gigantic leaves of some species are applied to many domestic purposes. They thatch the Indian cottages ; and are a natural table-cloth, and material for basket-making; and yield a most valuable flax, from which some of the finest Indian muslins are prepared. The juice of one kind is used for dyeing. Still more serviceable is the cocoa-nut tree for the convenience as well as food it yields to the natives of many islands. Of its trunk, their best spears are made, the rafters, wall-plates, and pillars for their houses, their fences, and various instruments. It is also their fuel. Of its leaves they form screens, and several kinds of baskets, and plait them for bonnets. Of its fibrous parts, attached to the bark, they work jackets, coats, and bags, and even shirts. Besides milk, and abundant edible food, the tree also supplies a copious oil. The large shells of the nut, holding a quart, are used for bottles, and the smaller for cups and drinking vessels, and the fibres of its husks are made into cordage. The cocoa palm has this useful peculiarity, that it vegetates in sandy and stony, as well as in the richest earth. Hence it so soon springs up in coral and newly-risen islands.

## 1111.

## A YEAR AGO.

A year ago! a year ago !-
What magic have the wordsAs 'twere the hand of memory Touching the heart's mute chords; The old sweet sounds breathe forth again, Of music long since past,
Voices whose every tone's the same As wheu we heard them last.
A year ago-there was a face,
We never see it now: We never see it now;
It may be we ro more shall trace
The pure thoughts on that brow;
And yet it seems to meet our gaze,
With all the love it wore,
For us in those glad vanish'd days, When time so soon pass'd o'er.
A year ago-how many things Come now in mournful token.
That round our hearts still fondly cling The ties we thought were broken; What rapture bid it rend the heartWhile brapture bid it glow,
While breathing o'er those simple words-
A year ago-a year ago.
Anne Fremont.

## 1112. DO A GOOD TURN WHEN YOU CAN.

It needs not great wealth a kind heart to dis-
play If the hand be but willing it soon finds a way,
And the poorest one yet in the humblest abode,
May help a poor brother a step on his road.
Oh! whatever the fortune a man may have won,
And though poor be our purse it is done,
row our span,
Let us all try to do a good turn when we can.
The fair bloom of pleasure may charm for a
But its beauty is frail, and inconstant its smile;
Whilst the beauty of kindness, bloom!
Sheds a sweetness o'er life and a grace o'er our
tomb: tomb;
Then if we enjoy life, why the next thing to do Is to see that another enjoys his life too;
now our spor, be our purse and though nar-
Let us all try to do a good turn when we can.
Charles Swain.

## 1113.

## RUSSIAN CAVIAR.

Ikri, or caviar, is an article of much importance in Russia. Of this singular dainty great quantities are consumed all over the empire. It is fortunate for the Russians that, with their great predilection for every thing of the 1. sh kind, their seas are stored with an unexampled profusion of fish. The
sea of Azoff is, perhaps, the most abundant in fish of all the seas or lakes of the known world. The Caspian and Volga, as formerly stated, are also munificently stocked; while the mouth of the Don literally swarms with the small sirga, of which many were in the market here, hard and dry as a piece of firbark. This is the fish of the poor; just as costly fishes are those of the rich: the latter, also, must exclusively belong to the ikri, now spoken of. It is of consequence, also, as an export ; for though there is an article nearly similar, well known on the shores of the Mediterranean, under the name of "botargo," and made much in the same way, from the roes of a species of mullet, yet the Russian article is often sent to Italy. Germany and France take considerable quantities, and England a little, but so little, that, for the information of some of our readers, it may be necessary to state, that caviar is a shining brown substance, in small grains, exactly like those of bramble berries nearly ripe. In order to make it, first catch your sturgeons; it is a long way to go, but in the month of March they are to be found in millions, on their spawning beds, in the mouth of the Danube, the Dnieper, the Don, or the Volga, where both nets and hooks are er ployed against them. Then open your sturgeon, and, if a good one, you will find in her probably three millions of eggs. Having removed all the membranes of the roe, wash the grains with vinegar, or with what, as travellers can tell to their cost, is not unlike vinegar, the white wines of the country. Next spread them to dry in the open air; after which, you must rub in salt enough to burn a Russian mouth, then put them in a bag, and press the juice out. Finally, pack them into wide-mouthed casks, bring them to the fair here at Kharkoff, and you will make a fortune by them; for the profits are said to be very great. After all it is not worth the money; it is a bitter, cucumber-tasted stuff. It is eaten raw with oil and lemon juice, and tastes worse than the Hamburgh herrings, or Swedish salmon. It is one of the most valuable articles of Russian trade, however; the sales, external and internal, being probably rather above than below the annual value of two millions sterling. An inferior kind is made from the roes of other large fish.-Bremner.

## 1114. DOMESTIC SURGERY.

ACCIDENTS, from whatever cause, are always sudden, and as a life may be saved, and much pain avoided, by the promptness with which remedial agents are applied, every household should have a few of the most necessary articles always in readiness in case of emergency. For this purpose we have appended a list of the most effective means and appliances to be used in case of accident, or sudden necessity.
1115. Half a yard of linen, spread adhesive plaster ; a few sheets of wadding, such as ladies use to line their dresses; some lint; a little fine wool ; a four-ounce green bottle of the liquor plumbi, or extract of lead, labelled "poison ;" a few bandages, or rollers, an inch and a half wide, and varying from four to six yards in length; and a packet of violet powder.
1116. For the sake of convenience and facility, we shall arrange all surgical matters under six heads; so that any information can be immediately found by referring to the class under which it would be naturally placed, as-

1st. Accidents from fire, water, and temperature.

2nd. Accidents from violence.
3rd. Accidents from weapons or edge tools.

4th. Medical surge:y.
5th. External remedies; and
6th. Various matters.
1117. Accidents from Fire, Water, and Temperature.-Burns, scalds, drowning, hanging, suspended animation, sun stroke, frost bites, and chilblains.
1118. Burns are divided into those where the application of heat merely produces redness of the skin or blistering, and where the intenseness of the agent causes the death of the part. An important fact to be remembered in all cases of burns and scalds, is the immediate exclusion of the air, for the sooner the part can be covered over, and the irritating influence of the atmosphere shut out, the sooner will the pain subside, and the cure be effected. Whatever part of the body has been injured by fire, cover it directly with a piece of lint, or lineu rag, well wetted with the liquor plumbi, or extract of lead, whether the hurt done is merely a scorch, or a deep.
seated burn. Cover this in turn by a fold or two of wadding, and secure the whole on the part by a few turns of a roller, and allow it to remain untouched for several days, or until the inflammatory action has subsided. When the dressings are removed, cover the abraded part with a thick coating of violet powder, which repeat every day till the new cuticle is formed.
1119. Where the extract of lead cannot be obtained, envelope the injured part in wadding, fine wool, tow, violet powder, or simple flour, linseed meal, or any inert substance in a state of powder. All that is necessary is to exclude the air as quickly as possible, and leave the cure to nature, on no account removing the first dressing till the cure is well advanced. When the pain continues long after excluding the air, let an adult patient take from twenty to forty drops of laudanum in a little water, keeping down constitutional disturbance by cooling purgatives, such as Epsom salts, mixture No. 733. When there is much oppression of the lungs, and difficulty of breathing, put the patient, all but the injured extremity, into a hot bath, and apply a mustard poultice to the chest, and, when necessary, to the feet and thighs also.
1120. Scalds are to be treated in every respect like burns, whether proceeding from boiling water, oil, molten metals, or steam. When the extract of lead is at hand, wet a piece of lint the size of the scald with it, and lay it over the injury, and carefully envelope in wadding or wool, securing the coverings by a roller passed loosely round.
1121. Allay constitutional disturbance by a dose or two of laudanum, a blister to the neck, nape, or chest, as the difficulty of breathing or congestion of the head may seem to call for it; and the mustard to feet and thighs, if the symptoms demand it.
1122. Whenever scalds or burns occur over joints, the utmost care must be taken to keep the limb extended, and as soon after the subsidence of pain will allow, it must be frequently moved, and never allowed to remain quiescent for more than a few hours at a time. This precaution is necessary to avoid the danger of a stiff joint, and the adhesion of the cuticle to the neighbouring parts.
1123. Drowning.-Wipe the body dry,
and place it on a warm mattrass, covered with a blanket, and rub incessantly with flannels under the blanket; keep the head raised, apply hot bricks, or bottles full of hot water, under the arm-pits, to the feet and thighs, and place hot tiles under the spine. Irritate the nostrils with a feather and the smell of strong ammonia. An injection of warm gruel and turpentine should be thrown up the rectum; turn the body on its side, and use rapid friction along the spine with brandy and turpentine. Should these means not restore animation, remove the body to a hot bath for ten or fifteen minutes, keeping up artificial respiration the whole time, by closing the lips with the hand, and inserting the pipe of a small pair of bellows into one of the nostrils, and while an assistant presses back the larynx, or organ of voice, to let the air enter the windpipe, inflate the lungs steadily with the
bellows, forcing out the air by pressing the bellows, forcing out the air by pressing the hand on the stomach after every inflation. As soon as the patient can swallow, give a little weak wine and water, and when reaction commences, an emetic of half a drachm of white vitriol dissolved in a cup of warm water, or, if more convenient, an emetic of mustard. To relieve the headache that supervenes, bleed or apply leeches to the temples, or apply a blister to the nape of the neck.
1124. Hanging. - When the body is cut down, use artificial respiration, as advised for drowning. Without the bath, dash cold water in the face; blister along the spine; apply mustard poultices to the feet; and give a strong purgative of two drops of croton oil, dropped on the tongue, and, if necessary, leeches to the temples, or bleeding from the jugular vein.
1125. Suspended Animation, from noxious gases or effluvial poisons. Artificial respiration, cold water dashed on the face and chest, bleeding, general or local, strong friction along the spine, and the application of ammonia to the nostrils, and irritation with a feather, and when conscious an emetic, to equalise the circu-
lation. lation.
1126. Sun Stroke, or Coup de Soleil. -This affection, almost peculiar to tropical climes, may affect either the head or the lungs, producing congestion in the organ influenced, or a species of apoplexy. The
treatment consists in bleeding, sudden effusions of cold water, and an emetic. Blisters to the neck or chest, and mustard poultices to the feet, must be added, if the symptoms call for their employment.
1127. Frost Bites.- The effect of extreme cold to the body is to produce exhaustion, and an irresistible drowsiness, which, if yielded to, terminates in coma and death. These phenomena are the consequence of a decreased action in the arteries and stagnation in the veins, causing the venous blood to become congested, or gorged, in the large organs, and destroying life by apoplexy. Frost bites are only local affections of this general state of the system; producing partial or complete death in the part attacked. This state is indicated by a dull red colour in the affected part; blood is then effused by the powerful contracting force of the cold; giving a livid yellow colour to the cuticle, attended with insensibility and diminution of the bulk of the part, followed by gangrene and final sloughing of the diseased portion, or member.
1128. Treatment.-Instantly rub the part gently with snow, in some cold room; after a time substitute cold water for the snow, gradually increasing the rubbing, but so carefully as not to raise the temperature too rapidly; for if the reaction is too sudden, or the friction too violent, mortification will ensue, and the very evil we are striving to avoid will be produced. Where the whole system is rendered torpid from cold, place the body in a cold bed, in a room without a fire, and covering it with a sheet; treat the whole body in the same manner ; give weak brandy and water, use an injection of gruel and turpentine, and very gradually increase the temperature.
1129. Chilblatis are only a modified kind of frost bite, proceeding from the same cause, though their treatment is very different. Whether the chilblain is whole or broken, first soak the part affected for a few minutes in warm water; then wet a piece of lint in the extract of lead, and wrap it round the blain, repeating the application of the extract every half hour for a few times, when the cure will be effected. When the chilblain has been broken, keep the wet lint on the sore till the ulcer films
over, which will be effected in about two days.
1130. II. Accidents, the result of Vio-lence.-Fractures, dislocations, contusions, black eyes, stings, or bites and swellings.
1131. Fractures are of two kindssimple, where the bone is merely broken, without injury to the skin and muscles; and compound, where the fractured bone is protruded through the flesh, or the integuments are wounded over the fractured bone. It is, however, only of the first that we shall treat.
1132. Fractures are usually known by a deformity of the part-such as a bending, shortning, or twisting of the injured limb. By an increased mobility, by extreme pain, and by a grating noise, called crepitus, when the ends of the bone rub together as the limb is moved.
1133. Treatment.-The upper end of the limb is to be firmly held by an assistant, while the lower end is to be gently and steadily pulled down and straightened, till the broken bone is placed in its natural position. Having ascertained, by passing the fingers up the limb, that the ends are in perfect contact, apply the splints, padded with wool, and secure them by pieces of tape, and preserve the limb in perfect rest till the bone has united-a process that, according to the age and strength of the patient, requires from four to twelve weeks to effect. As the strings become slack, they must be tightened, and about the fourth week the splints may be readjusted. Should the limb swell at any time, slacken the strings, and if the puffiness continues, apply a lotion of cold vinegar and water to the part between the splints. In fractures of the thigh, the long splint should be applied to the outside of the limb, to prevent the undue contraction of the muscles. Where no proper splints are at hand, it is customary to cut two strips of thick pasteboard, of the proper length, and soak them for a few minutes in hot water, and apply them, in this softened state, to the limb, tying them in the usual way with tape, which, as they dry and harden, take the form of the member, making a safe and firm case, that answers very well for all the purposes of a splint. Where neither wood or pasteboard can be procured, a very excellent splint may be extemporised by fill-
ing two narrow cotton bags with unbrokers wheat straw, and sewing up the ends; apply one on each side of the limb, securing them in the usual way. These are-so madeboth splints and pads.
1134. Fracture of the collar bone, or clavicle, as it requires a peculiar kind of bandage, is the only particular accident of this kind that our space will permit us to notice. This fracture is easily detected by the inability to lift the arm, and the patient supporting the elbow in his hand; and by the shoulder sinking downwards, forwards, and inwards. The reduction of the bone must, consequently, be made in an opposite direction-upwards, backwards, and outwards. This is best effected by placing the elbow close to the side, and a little forwards, and then pushing the arm upwards. The arm-pit must be filled up with a triangular pad to keep the bone out, and both shoulders drawn back by a figure of 8 bandage, from shoulder to shoulder, over breast and back, and the injured arm secured to the side by a few turns of a roller, and the fore-arm placed in a sling.
1135. Dislocations.-These accidents are known by a deformity or alteration in the form of the joint; an unusual prominence at one part, and depression at another: by a lengthening or shortening of the limb, and by the loss of motion in the joint. A dislocation may be either upwards, downwards, or inwards; but in whichever way it may be, the extending power employed to reduce it must be in a direction contrary to that which the head of the bone has taken. As the great difficulty experienced in reducing adislocation arises from the resistance offered by the contractile power of the muscles, it is advisable to give the patient an emetic first, so as to relax the fibres, and thereby facilitate the reduction. For this purpose, if the patient is strong and robust, give an emetic of two grains of tartar emetic.
1136. Treatment.-The reduction or setting of a dislocated bone is effected by fixing the part from which the bone has been dislodged by passing-if for the arma sheet or jack-towel over the chest, and securing it to a bed-post, or some fixed point; and while an assistant keeps the shoulderblade, or scapula, from moving, gradually extend the arm till the head of the bone has passed the socket, when by relaxing the
strain, the head glides into its place with a snap. After reduction, the limb must be kept perfectly still for some days; and if much swelling supervenes, apply a few leeches, or a cold lotion, made by dissolving an ounce of sugar of lead in two pints of water, to which add a quartern of vinegar: this is to be applied over the swelling, as long as necessary.
1137. Contusions.-These are injuries inflicted by blunt instruments, or falls, without perforating the skin. Contusions, if severe, may destroy the structure of the integument, making it pulpy and black; or if by gradual swelling at first of a reddish colour, speedily becoming black, on the third day violet, on the sixth changing to green, and about the seventh or eighth assuming a yellowish colour; and, finally, disappearing about the twelfth or fourteenth.
1137*. The treatment of Conzzeroys resolves itself into two operations, to check further effusion-for the swelling and discolouration is the consequence of the rupture of a vessel, and the effusion of blood into the tissue below the cuticle-and promote the absorption of that which has been effused. For this purpose, wet a pledget, or folded piece of lint or linen, with the extract of lead, and lay it over the swelling, or contusion, re-wetting the pledget every quarter of an hour, or as often as it dries, and in an hour or two, the most severe swelling will have completely subsided; while a little longer employment will remove the dispolouration, and with it all tenderness and pain.
1138. In making the public and the profession generally acquainted with the remarkable properties of the pure extract of lead, the writer of these pages believes he is conferring a positive boon upon all wives and mothers ; and feels confident that, once having tested its efficacy in bruises, burns, contusions, and cuts, no family will consider itself safe without it ; the fact is more valuable, as very few of the profession are in any degree aware of its properties, and fewer would propound the knowledge if they knew it.
1139. Eccuymosis, or Black Eye, being nothing more than a contusion, is to be treated exactly in the same manner, only closing the eye, and keeping the pledget in
those who do not possess the extract of lead, the next best remedy for black eyes is to scrape some Soloman's Seal, and damping it with vinegar, apply the wet raspings, on lint, to the eye, changing the application every hour, till the ecchymosis and discolouration is subdued,
1140. Swellings, the result of inflammatory action, when attended with pain, heat, and throbbing, must be treated like abscesses, and constantly poulticed till they break, or are opened, when the heat must be repeated till the matter is discharged, and the process of healing begins; when it may be left to nature, merely covering the opening from the irritation of dirt or friction.
1141. Stings, or Bites, of Insects.In this country, the bee, wasp, spider, scorpion, and viper, are the only insects, or reptiles. that are at all likely to produce injury to the body. And these, though painful, seldom produce any serious harm, unless the sting has been inflicted on the throat, over the organ of voice, or in the mouth, near the pharynx, or fauces. In these cases, the symptoms of suffocation that follow the sting demand leeches to the throat, hot fomentations, cordials, and an opiate. But in all other parts of the body, whether the sting has been extracted or not, all that is needed is to wet the part freely with the extract of lead, and keep it covered with a rag wetted with the extract. It is customary to touch the bitten part with hartshorn, and when nothing better can be procured, it may be used; but nothing is equal to the lead.
1142. The symptoms produced by the venom of all noxious reptiles, such as the cobra de capello, rattlesnake, serpent viper, and others, are more or less the same fainting, difficulty of breathing, constriction of the throat, palsy, and coma-the poison inducing convulsions and effusion of blood into the lungs:
1143. Treatment.-Apply a ligature above the bite to cut off intercourse with the heart; apply cupping-glasses over the puncture, or exhaust the air out of a wineglass, by burning a little brandy in it, and apply it in the same way; repeat this once or twice; suck the wound with the mouth, taking care however that there are no cracks or abrasions on the lips ; give restoratives of brandy, ammonia, and ether;
promote vomiting by an emetic of ipecacuanah to throw off the excess of bile secreted, and rouse the energies by electricity when procurable.
1144. III. Accidents the Result of Weapons or Edge Tools. - Incised wounds, punctured wounds, lacerations.
1145. Cuts or Incised Wounds are such injuries as are inflicted by knives or clean-cutting weapons. These wounds are only dangerous when some large artery is divided, and where the patient may sink from the exhaustion consequent on the hæmorrhage, or bleeding. The first step in the treatment is always to check the effusion of blood; if the divided vessel is to be seen in the wound, this may be effected by placing the finger, or a small compress, on the bleeding surface, or by making a tourniquet of a bandage, and passing it with moderate tightness round the limb, between the wound and the heart, and close the wound. But, in all ordinary cases, pour some extract of lead into the cut, which, acting as a styptic, will check the hæmorrhage; then bring the edges or lips of the wound neatly together, wipe the part dry, and keep the sides together by a few strips of adhesive plaster ; place a piece of lint over the strapping, and pass a fold or two of the roller over all.
1146. Punctured Wounds are the most dangerous, because their depth is uncertain; and if a vessel is wounded, there is no means of reaching it but by enlarging the aperture. When bleeding follows a punctured wound, apply compression above the wound to stop the hæmorrhage, and place a pledget of lint, soaked in warm water, to the puncture; keep the part at rest; and when matter forms, apply hot poultices to promote a free discharge.
1147. Lacerated Wounds are torn and jagged wounds, such as are inflicted by splinters. Such injuries are generally followed by much pain and inflammation, and often sloughing, especially after the bursting of fire-arms.
1148. Treatment.-Wash the part in warm water, removing any gravel, splinters, or foreign substances that may adhere to the flesh. Lay the parts as smooth and neatly as possible, and cover the injury with lint well wetted in the extract of lead; place over this a small poultice of hot bran, and
confine the whole by a slack bandage, changing the cold poultice for a hot one every two hours. On the following day renew the pledget of extract and continue the poultice if necessary. Dress the wound daily with the lead; and should a tendency to sloughing show itself, which will be known by a fœetid smell, wash the wound with chloride of lime, which will change the action, and promote a healing process.

## 1149. ASSIST CHILDREN TO OBEY.

 -"Kiss mamma, dearest," is a command you may be sure will be obeyed with alacrity, but beware how you hazard your authority by saying, "kiss that lady, my dear." Look well at the countenance of the child before you issue the command, to see whether it is willing to be embraced; for it is of no importance whether it salute a stranger or not, but it is of immenseimportance that it should not disobey its mother in a single instance.1150. THE WEAVER BIRD.-In the course of my rambles, says Mr. Steedman, I observed several nests of the loxia, or weaver bird, which were suspended from the branches of a mimosa tree, and succeeded, with some difficulty, in obtaining them. The singular contrivance of this bird in constructing its nest for the protection of its young from the attacks of reptiles and monkeys, which abound in the woods, is truly surprising. To increase the difficulty to access to these tree-rocked cradels, they usually impend over a river or precipice, while the entrance is always from below, and frequently through a cylindrical passage of twelve or fifteen inches in length, projecting from the spherical nest, exactly like the tube of a chemist's retort. The whole fabric is most ingeniously and elegantly woven of a species of very tough grass; and the wonderful instinct, or foresight, or whatever else we may choose to call it, displayed by the little architect in its construction, is calculated to excite the highest admira. tion.

> Suspend the loxia's callow brood, In cradle-nests, with porch below, Secure from wing'd or creeping foe, (Weasel, or hawk, or writhing snake); Wild waving, as the breezes wake, Like ripe fruit hanging, fair to see, Uvon the rich pomegranate tree.

## 1151 PHENOMENA OF OCTOBER.

"Grey mists at morn brood o'er the earth, Shadowy as those on northern seas; The gossamer's filmy work is done, Like a web by moonlight fairies spun, And left to whiten in the breeze.
" Far sails the thistle's hoary down; All summer flowers have passed away ; This is the appointed time for seed, From the forest oak to the meanest weedA time of gathering and decay."

Mary Howitt.
The summer has indeed gone! The bright tints of gay flowers have faded, and the motley garb of the woods speaks only of maturity and decay. The leaf, the flower (and shall we not add-man), each serves a purpose in the world, and, having more or less perfectly accomplished it, departs. Solemn thoughts are suggested by the accession of autumn; the falling of the leaf, the mist-hung scenery, and fading vegetation; for there is enough of the poetic temperament in the majority to apply the analogy to human life, "which groweth up like the grass, and to-morrow is cut down and withered."
1152. The swallows, like the flighty ambitions of our youth, or like false friends, have departed. For days before they leave us, they may be seen assembling on church towers, elevated buildings, or willow plantations by the river sides. At first, a few only perch, and, like touters for steampackets, loudly scream that the company will start from that particular locality. Presently, high wheeling above our heads, we may see a thousand of their fellows, apparently in a high degree of excitement, screaming to each other as if they were determined to enjoy a good frolic before finally leaving the pleasant scene, and entering upon their long and dangerous journey. Gradually, towards sunset, we have seen them come down like a shower of birds, and blacken the point of rendezvous, where they rest till early morning, where we look for them in vain. Indeed, there appears something magical about their disappearance; for upon several occasions, having observed their assemblage at nightfall, we have risen with the grey light of morning to see the host depart, but the travellers have always been up before the sun, and out of sight before we reached their rendezvous.
1153. It has been remarked, "that no living creatures, which enliven our landscape by their presence, excite a stranger sympathy in the lovers of nature than migratory birds. They interest the imagination by that peculiar instinct which is to them chart and compass, directing their flight over continents and oceans to that one small spot in the great world which nature has prepared for their reception-which is pilot and captain, warning them away, calling them back, and conducting them in safety on their passage ; that degree of mystery which yet hangs over their motions, notwithstanding the anxious perseverance with which naturalists have inves. tigated the subject, and all the lively and beautiful associations of their cries and forms, and habits and resorts. When we think, for a moment, that the swallows, martins, and swifts, which sport in our summer skies, and become cohabitants of our houses, will presently be dwelling in the heart of regions which we long in vain to know, and whither our travellers toil in vain to penetrate-that they will, anon, fix their nest to the Chinese pagoda, the Indian temple, or, beneath the equator, to the palm-thatched eaves of the African hut; that the small birds which populate our summer hedges and fields will quickly spread themselves over the regions beyond the Pillars of Hercules and the wilds of the Levant of Greece and Syria; that the thrush and the fieldfare which share our winter, will pour out triumphant music in their native wastes, in the sudden summers of Scandinavia-we cannot avoid feeling how much of poetry is connected with these wanderers of the earth and the air."
1154. The swallows are a family of birds living upon insects, and in which the powers of flight attain their highest development, while the feet are comparatively useless for purposes of locomotion. It occupies different positions in various classifications. The European species of this family are the "true swift," the " white-bellied swift," the " rock martin," the "rufous swallow," the "martin," and the "sand-martin." The true swift, the rufous swallow, the martin, and the sand-martin, visit Britain in the summer time, the rest rarely or never come to our shores. In the true swift the leg is thickly feathered almost to the claws, and
all the four toes are directed forwards. It will be seen from this that the swift cannot perch upon a bough, or take hold of anything; its foot is in the same predicament that our hands would be if the thumb were removed. This beautiful creature comes to this country early in May, and leaves us towards the end of August. It comes the latest and departs the soonest of its tribe. It is the largest of the swallows which visit us; but its weight is exceedingly small when compared with its extent of wingthe former being scarcely an ounce, the latter nearly eighteen inches. Owing to the peculiar conformation of the feet, to which we have already alluded, and which are smaller than in any other of its own species, it walks upon the ground with difficulty, and finds it almost impossible to rise, because its feet render it no assistance in springing, and its wings and tail are so long as to beat the earth, and thus become less an aid than an impediment.
1155. We remember, a few summers ago, that a swift having been caught in its nest, was placed upon a grass-plat, and found itself quite unable to escape. It was suspected that its wings had been injured, or that some violence had been done to it in its capture ; but, upon examination, no such calamity appeared to have befallen it; indeed, while the question was being discussed, the swift took flight from the hand with perfect ease, and like an arrow, darted up into its natural element, the air. It was remarkable that the nest, which was within reach of the window, was not forsaken by the bird, even though the graceful aeronaut was repeatedly caught at night in its place of roost.
1156. The swift is more upon the wing than any other swallows, and its flight is more rapid, hence its name-"swift." As it wings its graceful course it seems to announce its joyousness by a screaming of peculiar shrillness. It rests by clinging against a wall, and breeds under the eaves of houses, in steeples, and other lofty buildings, where it constructs its nest of grasses and feathers, and lays two long white eggs. Its colour is a dark glossy black, the chin only having a white spot upon it. It was a popular superstition at one period that there was in India a bird which had no feet, lived upon celestial dew, floated perpetually
on the air, and performed all its functions in that element. Referring to this, Mr. Pennant says, "The swift actually performs what has been disproved of the bird of Pa radise ; except the small time it takes in sleeping, and which it devotes to incubation, every other action is performed upon the wing. The materials of its nest it collects either as they are carried about by the winds, or picks them from the surface of the ground. Its food is undeniably the insects which fill the air. Its drink is taken in transient sips from the water's surface. These wonderful birds rise very early and retire to roost very late, remaining in incessant activity during the long summer days. A pair, whose motions we observed some years ago, were on the wing, on more than one occasion, from a little after four in the morning till nearly nine o'clock at night. Those residing in a particular neighbourhood seem to assemble like human families before bed-time, and shrilly wish each other 'Good night' in the high air, and forthwith, with one accord, to come down to their nests. Great power of sight is, of course, indispensable, both to enable the bird to obtain its food, and to ensure its safety in its rapid flight; but this power is not always sufficient to guard it against accident. Mr. Yarrell relates that he saw a swift, " on eager wing," dash itself against a wall; it was picked up stunned, and died almost immediately in the hands of the observer. In its northward career its visits are not confined to England, but extend to the whole of Europe. When it leaves us it goes to the northern shores of Africa and similar latitudes. It has been seen at the Cape of Good Hope, and in the island of Madeira. The qualities of the swift are thus quaintly summed up in the Portraits d'Oyseaux :-
" Le Moutardier, ou bien grand Martinet, Est a voler tres-leger et forte viste: Mais sur la terre il ne pose, ny giste,
Car y estant, sur pieds mobile n'est."
1157. These birds, deriving their food, as they do, from matters floating in the atmosphere, are apt to catch at everything; and in the island of Zante the boys avail themselves of this circumstance to fish for swallows with a hook baited with a feather, and are related to have caught as many as five or six dozen per day !
1158. Swifts and swallows are the inveterate persecutors of hawks; the latter are especially active in attackingsuch predacious intruders, and persevere as long as the opportunity remains.
1159. In connection with this subject, it will be appropriate to allude to the general structure of birds, and to point out the chief points in which they differ from other creatures. It is manifest that they must be very light, and yet in the case of those who indulge in long flights, they must be very strong. Now it would appear that, to secure great strength, large muscles must be used ; and these, to be efficient, must have strong bones to support them, as points of attachment. But the difficulty arises, how can this organisation be combined with the lightness required. This, which might have puzzled any human architect, is achieved by the Designer of the bird. All its bones are hollow, and can be filled with hot air each time the bird breathes; its body, also, is small in proportion to the extent of its wings. The covering of these denizens of the air presents every variety of texture and tint. How gorgeous is the metallic lustre of the peacock, the kingfisher, or the humming-bird! how rich the colours of the parrot or the flamingo ! -

[^9]1160. Birds have no teeth, yet their food, in many cases, is of such a character as to demand mastication ; but teeth would have been a very heavy piece of machinery. The food, when obtained, is transferred to the crop or craw, from thence to a membranous bag, where it is soaked in a kind of saliva, and then is conveyed to a third stomach, where the process of digestion is completed. In birds which feed upon grain, the sides of the stomach are of considerable thickness, and are surrounded by very powerful muscles. Here, with the aid of small stones and sand, the food is ground as in a mill, instead of being masticated by the teeth; yet comparatively few persons know that the gizzard or stomach of the fowl is such a curious piece of machinery.

## 1161. CARBONIC ACID SNOW.

Mr. Buckingham says, in his work on America:-I had an opportunity of attending one of the chemical classes of my friend, Dr. Mitchell, and witnessing there a most interesting experiment, for the rendering carbonic acid gas solid, and for producing by it a degree of cold, extending to 102 deg. below zero, on the scale of Fahrenheit's thermometer. The materials, first confined in a strong iron receiver, were, super-carbonate of soda and sulphuric acid, in separate divisions : the whole was then powerfully shaken, so as to be well mixed or incorporated; and this operation continually evolved the gas, till the whole vessel was filled with it in a highly condensed state.

An instrument, not unlike a common tinder-box, as it is used in England, but about twice the size, and with a small tube of inlet passing through its sides, was then fixed by this tube to a pipe from the receiver. The inside of this box was so constructed as to make the gas injected into it fly round in a series of constantly contracting circles, which was effected by projected pieces of tin at different angles, fastened around the sides of the interior. The gas being then let out by a valve, entered this box from the receiver, making as loud a hissing noise as the escape of steam by the safety valve of a large boiler, and in about three or four seconds the emission of the gas was stopped. The box was then taken off from the receiver, and its cover opened, when it was found to be filled with a milk-white substance, in appearance like snow, but in consistence like a highly wrought froth, approaching to a light paste. It was surrounded with a thin blue vapour like smoke, and was so intensely cold, that the sensation of touch to the fingers was like that of burning; and the feeling was more like that of heat than cold. The slightest particle of it, dropped on the back of the hand, and if suffered to remain there, occasioned a blistering of the skin, just like a scald; and some of the students of the class, who attempted to hold it in their fingers, were obliged to let it drop as if it were red-hot iron.
Some liquid mercury, or quicksilver, was then dropped into a mass of this "carbonic acid snow," as it was called, mixed with
ether, upon which it instantly froze, and being taken out in a solid mass, it was found to be malleable into thin sheets under the hammer, and capable of being cut up like iead, with a knife or large scissors. As it became less cold it grew more brittle, and then when pressed strongly with the thumb or finger against a solid substance, it was found to burst under the pressure, with a report or explosion like the percussion powder.

A small piece of this carbonic acid snow was placed on the surface of water, where it ran round by an apparently spontaneous motion, and gave out a thin blue vapour like smoke. Another piece was placed under the water, and kept beneath it, when it emitted gas in an immense stream of airbubbles, rushing from the bottom to the top, then returning, in short, from its solid to its original gaseous condition. Some of the snow was then mingled with the wellknown " freezing-mixture," and by stirring these both together, a degree of intense cold was produced, extending to 102 deg . below zero, and there remaining for a period of ten or fifteen minutes; though the weather was extremely hot, the thermometer standing at 94 deg. in the shade, in the coolest parts of Philadelphia, and being at least 90 deg. in the lecture-room itself.
The practical application of this discovery to the propelling of engines, in lieu of steam, was then exhibited to us. A model of an engine, of the ordinary kind, now in use for mines, manufactories, and steamships, was placed on the table before the lecturer. A metal tube was then screwed on to the pipe and valve of the receiver, in which the condensed carbonic acid gas was contained, and the other end of the tube through which the gas was to escape, when let into it from the receiver, was applied to the wheel of the model engine; the gas was then let out, and the rushing torrent of it was such as that it propelled the enginewheel with a velocity which rendered its revolutions invisible, from their speed, making the wheel appear stationary, though in a trembling or vibratory condition, and rendering all perception of the parts of the wheel quite impossible till the gaseous stream which gave the impetus was withdrawn.

## 1162. THE SONG OF THE LABOURER.

Ho! Brother take this hand of mine, tho' 'tis of dusky hue,
The heart that prompts its bounding pulse, is steadfast, loyal, and true;
In Freedom's cause, in Friendship's name, 'twill give what aid it can;
Then wince not Brother, at the grasp that comes from man to man.
The monarch on his lofty throne, the lord in glittering state,
The creatures of a sunny hour, on Fortune's smile that wait,
They live in pleasure's palaces, the tenants of our will,
Then who shall dare gainsay the truth, that all are Brothers still?

Tis ours to toil from morn till night, the heavy sledge to wield,
To delve unseen in sunless mines, or till the stubborn field,
With sinews bare, and reeking brow, and hand that never rests,
To conjure instinct fabrics up, obedient to our hests.
Tis yours, perchance, to shape the brain, to build up thought on thought,
To show in Fancy's shadowy form, what wonders may be wrought,
But all they boast of sterling worth, owns our immediate skill,
So they who work with head or hand, are Brother labourers still.

Why common interests then divide, with sullen selfish creed?
Why wield the arms which knowledge gives, to show how hearts may bleed?
The oar we tug galls hard enough, without the clutch of pride,
Then let us pull unitedly, in earnest with the tide.
Our hopes, our fears, our destinies, the feelings of each frame,
Though differing in idle terms, in spirit are the same,
Say what we will, act how we may, be it for good or ill,
Truth still asserts her first decree, men all are Brothers still.
1163. SUPERFICIAL KNOWLEDGE.
-The profoundly wise do not declaim against superficial knowledge in others, so much as the profoundly ignorant; on the contrary, they would rather assist it with their advice than overwhelm it with their contempt; for they know that there was a period when even a Bacon or a Newton were superficial; and that he who has a little knowledge is far more likely to get more than he that has none.-Colton.

## 1164. WOMEN OF FLINDER'S ISLAND.

The climbing of the lofty, smoothtrunked gum trees, by the women, to obtain opossums, which lodge in the hollows of decayed branches, is, says Mr. Backhouse, one of the most remarkable feats I ever witnessed. This is effected without making any holes for the thumbs or great toes, as is common among the natives of New South Wales, except where the bark is rough and loose, at the base of the tree. In this a few notches are cut by means of a sharp flint or a hatchet, the latter being preferred. A rope, twice as long as is necessary to encompass the tree, is then thrown around it. In former times, this was made of tough grass, or strips of kangaroo skin ; but one of hemp is now generally used. The left hand is twisted firmly into one end of the rope, the middle of which is tightly grasped by the right; the hatchet is placed on the bare, closely-cropped head, and the feet are placed against the tree; a step or two is then advanced, and the body, at the same time, is brought into a posture so nearly erect as to admit the rope, by a compound motion, to be slackened, and at the same moment hitched a little further up the tree. By this means, a woman will ascend a lofty tree with a smooth trunk almost as quickly as a man would go up a ladder. Should a piece of loose bark impede the ascent of the rope, the portion of the rope held in the right hand is taken between the teeth, or swung behind the right leg, and caught between the great and the fore toe, and fixed against the tree. One hand is thus freed, to take the hatchet from the head, and with it to dislodge the loose bark. On arriving at a large limb, the middle of the rope is also secured in the left hand, and the loose end is thrown over the limb by the right hand, by which also the end is caught and the middle grasped, till the left hand is cleared. This is then wrapped into the middle of the rope, and the feet are brought up to the wrinkles of the bark, which exist below the large limbs. One end of the rope is then pulled downwards, and this causes the other to ascend, so that, by an effort of the feet, the body is turned on to the upper side of the limb of the tree. In descending, the woman places one arm
on each side of the limb of the tree, and swings the rope with one hand till she catches it with the other; she then turns off the limb, and swings underneath it, till she succeeds in steadying herself with her feet against the trunk, around which she then throws the loose end of the rope. Having secured this, she lets go the portion by which she was suspended under the limb, and descends in the manner in which she ascended. Although this is done with ease by women in vigour, one who had been out of health, but seemed recovered, could not get many steps off the ground; so that not only skill, but a considerable measure of strength, appears necessary to ascend the gigantic gum trees.

## 1165. A MELANCHOLY TRUISM. -

 In these days half our diseases come from the neglect of our body in the overwork of the brain. In this railway age the wear and tear of labour and intellect go on without pause or self-pity. We live longer than our forefathers, but we suffer more from a thousand artificial anxieties and cares. They fatigued only the muscles, we exhaust the finer strength of the herves; and, when we send impatiently to the doctor, it is ten to one but what he finds the acute complaint, which is all that we perceive, connected with some chronic mental irritation, or some unwholesome inveteracy of habit. - Sir Bulwer Lytton at Edinburgh.1166. CASTOR-OIL TREE.-According to M. Siller, the Ricinus is sown in Armenia among the cotton seed. It does not thrive , in high and bleak places. The seed, the entire annual produce of which amounts in Armenia to about 10,000 cwt., is roasted in copper pans, then ground on flat stones, the thick mass which results boiled in water, and the oil skimmed off. In this manner about 25 per cent. is obtained, which is consumed for the greater part as burning oil. A better kind is prepared from the shelled seed. The chemists of Tiflis purchase the seed and press it in screw-presses, which method is also followed in Sarepta; and this Russian oil is of a brighter colour, and far superior in purity, smell, and taste, to any of the Ar. menian.-Archiv. der Pharm.; Chemical
Gazette.
1167. TO CHOOSE MULLETS.-The sea mullets are better than the river mullets, and the red better than the grey. They should be very firm to be good. They are in season in August.
1168. TO BOIL MULLETS. - Boil mullets in salt and water, and put to the remainder of the water (after pouring away part) a pint of port wine, some salt and vinegar, two onions sliced, with a bunch of sweet herbs, some nutmeg, beaten mace, and the juice of a lemon ; boil these well together, with two or three anchovies; then put in the fish; and when they have simmered in it some time, put them into a dish, and strain the sauce over them. Shrimps or oysters may be added.
1169. TO BROIL MULLETS.-Scale and gut them, and cut gashes in their sides; dip them in melted butter, and broil them at a great distance from the fire. Sauceanchovy, with capers, and a little Seville orange, or lemon, squeezed into it.
1170. TO FRY MULLETS.-Scale and gut them ; melt some butter, and pour it into a deep dish; score the mullets across the back, and dip them into the butter; then set on in a stewpan some butter; let it clarify; fry the mullets in it: when they are done, lay them on a warm dish, sauceanchovy and butter.
1171. TO CHOOSE A TURKEY-COCK. -If young, it has a smooth black leg, with a short spur, the eyes full and bright, and the feet limber and moist. Take care the spurs are not cut or scraped. If it is stale, the eyes will be sunk, and the feet dry.
1172. TO CHOOSE A HEN TURKEY. -The hen turkey is known to be fresh or stale, old or young, by the same rules; only, if she is old, her legs will be red and rough; if she is with eggs, the vent will be soft and open; if the vent is hard, she has no eggs.
1173. TO BOIL A TURKEY.-Make a stuffing with grated bread, oysters chopped, grated lemon-peel, pepper, salt, nutmeg, about four ounces of butter, or suet chopped, a little cream, yolks of eggs, to make it a light stuffing: fill the craw. If any is left, make it into balls. Flour the turkey ; put it into water while cold; take off the scum as it rises; let it boil gently : a middling turkey will take about an hour. Boil the balls, lay them round it, with oyster-sauce in
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the dish, and in a boat. The stuffing may be made without oysters; or it may be stuffed with forcemeat, or sausage-meat, mixed with a few crumbs of bread, and yolks of eggs. If oysters are not to be had, white celery sauce is very good, or white sauce.
1174. TURKEY STEWED BROWN.Take a small turkey, and bone it; fill it with a forcemeat, made as follows:-Take half-a-pound of veal, and the meat of two pigeons, a tongue out of the pickle, boiled and peeled; chop all these ingredients together, and beat them in a mortar, with some marrow from a beef bone, or a pound of suet from a loin of veal; season them with two or three cloves, two or three blades of mace, and half a nutmeg, dried at the fire, and pounded with some salt ; mix all these well together, fill the turkey, and fry it of a fine brown; put it into a pot that will just hold it, lay some skewers at the bottom of the pot, to keep the turkey from sticking; put in a quart of good stock gravy, cover it close, and let it stew for half-an-hour, very gently; then put in a glass of port wine, one spoonful of catsup, a large spoonful of pickled mushrooms, and a piece of butter rolled in flour'; cover it close, and let it stew half an hour longer; fry some hollow French loaves; then take some oysters, stew them in a saucepan, with a bit of mace, their liquor, a little sherry, and a piece of butter rolled in flour ; let them stew till they are pretty thick; fill the loaves with them; lay the turkey in the dish, pour the sauce over it, and lay the loaves on each side.
1175. TO ROAST A TURKEY WITH OYSTERS.-When it is trussed for roasting, cut the liver to pieces, and set it over the fire in a stewpan, with half a-pint of oysters washed, and their liquor, which must be strained, some pepper and salt, two bay leaves, two blades of mace, a piece of butter rolled in flour; let these stew very gently about ten minutes, and then take them off; singe the turkey, and stuff it with the oysters; cover the paper over it, spit it, and lay it down to a good fire, but at a distance; while it is roasting, set on a stewpan with half a-pint of essence of ham; take a pint of oysters, throw them into boiling water; take off the beards, then put them into the essence of ham; add a
little lemon juice, give them a boil; when the turkey is done and in the dish, pour the sauce over it.
1176. TURKEY, HASHED.-Mix some flour with a piece of butter, stir it into some cream, and a little veal gravy, till it boils up; cut the turkey in pieces, not too small; put it into the sauce, with grated lemon peel, white pepper and mace, pounded, a little mushroom powder or catsup; simmer it up. Oysters may be added.
1177. TO CHOOSE A COCK OR HEN, CAPON OR PULLET.-If a cock is young his spurs will be short, but be very careful they are neither cut nor pared; if they are stale, their vents will be open ; if new, they will be close and hard. Hens are best just before they begin to lay and get full of egg; if they are old their combs and eggs will be rough; if young, they will be smooth. A good capon has a thick belly and a large rump there is a particular fatness at its breast, and the comb is very pale.
1178. TO BOIL FOWL.-A large one will be boiled in half an hour ; boil it in a pot by itself; skim it very clean; it will be better than if boiled in a cloth; pour some melted butter over the breast; serve it with tongue, bacon, or pickled pork; cabbage, savoys, brocoli, any greens or carrots, and oyster sauce, white celery sauce, or white sauce.
1179. TO BOIL CHICKENS.-A large one takes twenty minutes; a very small one, fifteen. For sauce-parsley and butter, or lemon sauce.
1180. TO ROAST FOWLS.-When the fowls are laid to the fire, singe them with some white paper, baste them with butter, then dredge over them some flour; when the smoke begins to draw to the fire, baste and dredge them over again; let the fire be brisk, and send them to table with a good froth. A large fowl will take three quarters of an hour, a small one twenty minutes. For sauce-gravy, egg-sauce, mushrooms, and white or brown celery sauce.
1181. TO ROAST CHICKENS.-A large one will take half an hour, a small one twenty minutes. For sauce-gravy, parsley and butter, or mushroom sauce.
1182. FOWL HASHED.-Cut it to
pieces, and put it into some gravy, with a little milk, catsup, or mushroom powder. grated lemon-peel, and nutmeg, a few oysters and their liquor, a piece of butter, mixed with flour; keep it stirring till the butter is melted; lay sippets in the dish.
1183. CHICKEN BOILED.-Cut it down the back, pepper and salt it, pour over it white mushroom sauce, or melted butter, with pickled mushrooms.
1184. CURRIE OF CHICKENS.-Cut two chickens as for fricasee, wash them in two or three waters, put them into a stewpan with as much water as will cover them; sprinkle over them a large spoonful of salt, let them boil till tender, covered close; skim them well when they first begin to boil ; take up the chickens, put the liquor into a basin, put half a-pound of butter into a pan, brown it a little, put to it two cloves of garlic, a large onion sliced; let these fry till brown, shaking the pan; put in the chickens; strew over them two spoonsful of currie powder, cover the pan close ; let the chickens do till brown, often shaking the pan; put in the liquor the chickens were boiled in; let all stew till they are tender ; if acid is agreeable, when the chickens are taken off the fire, squeeze in the juice of a lemon; put half a-pound of rice, picked and washed in salt and water, into two quarts of boiling water; boil it briskly for twenty minutes, strain it through a cullender, shake it into a plate, but do not touch it with the hand, nor a spoon; serve it with the curree in a separate dish.
1185. TO DRESS WILD DUCKS, WIDGEON, OR TEAL TO PERFEC-TION.-Half roast them ; when they come to table, slice the breast, strew on pepper and salt, pour on a little port wine, and squeeze the juice of a lemon over ; put some gravy to this, set the plate on a lamp, cut up the bird, let it remain over the lamp till done, turning it.
1186. TO CHOOSE WOODCOCKS.They live with us only in winter, and are best a fortnight or three weeks after they first come in, when they are rested from their long flight over the sea; they are very high-flavoured birds; if they are fat they will feel thick and firm; that is a proof they are in fine condition ; they will also feel thick and hard in the vent, and have a
vein of fat by the side of the breast ; a lean one will feel thin in the vent; if new killed, they will be limber footed, and the head and throat clean; when they are stale, the foot will be stiff and dry, the mouth and throat will be foul, and sometimes run at the nostrils.
1187. TO ROAST WOODCOCKS AND SNIPE.-Twenty minutes will roast the first, fifteen minutes the latter; put under either, while roasting, a toast, to receive the trail which lay under them in the dish. For sauce-melted butter and gravy.
1188. TO CHOOSE PLOVERS.- When new, they are limber-footed; when fat, they feel hard at the vent; when lean, they feel thin in the vent; when stale, they are dry-footed. These birds will keep a long time sweet. There are three sorts of plovers - the grey, green, and bastard plover, or lapwing.
1189. THE GENERAL WAY OF DRESSING PLOVERS.-Green plovers roast like a woodcock, without drawing; and the trail to run upon a toast, with good gravy for sauce. Grey plovers should be stewed. Make a forcemeat with the yolks of two hard eggs, bruised, some marrow cut fine, artichoke bottoms cut small, and sweet herbs seasoned with pepper, salt and nutmeg ; stuff the birds, and put them into a saucepan with some good gravy (just enough to cover them), a glass of sherry, and a blade of mace; cover them close, and let them stew very softly till tender; then take up the plover, lay them in a dish, keep them hot; put a piece of butter rolled in flour to thicken the sauce ; let it boil till smooth; squeeze into it a little lemon ; skim it clean, and pour it over them.
1190. TO DRESS RUFFS AND REIFS.-They come from Lincolnshire. They may be fatted like chickens, with bread, milk, and sugar; they feed very fast, and will die with fat if not killed in time. Draw and truss them, cross-legged like snipes; roast them. For sauce-good gravy thickened with butter, and a toast under them.
1191. TO STEW LARKS, OR ANY OTHER SMALL BIRDS.-Take some larks; when they are drawn, put them into a stewpan to some melted butter or bacon, an onion stuck with cloves, some mushrooms and some livers of fowls; toss them
all together with a little flour, moisten them with some gravy, and when a little wasted, beat an egg in a little milk, with some parsley cut small amongst it ; pour it into a stewpan, stir it round, but do not let it boil; squeeze a lemon into it.

## 1192. TO CHOOSE PARTRIDGES.-

 They are in season in autumn. If young, the bill is of a dark colour, and the legs yellowish; if new, the vent will be firm; if they are old, the bill will be white and the legs blue; if stale, the vent will look greenish, and the skin will peel when touched with the hand.
## 1193. TO ROAST PARTRIDGES. -

 They will be done in less than half an hour; for sauce-gravy and bread sauce.1194. TO CHOOSE PHEASANTS. If the cock pheasant is young, the spurs should be short and blunt, or round; if they are long and sharp, he is old. Examine the hen at the vent; if that is open and green, it is a sign she is stale; if she is with egg, it will be soft; if they are stale and are rubbed hard with the finger, the skin will peel.
1195. TO ROAST PHEASANTS They must be kept at a distance from the fire; flour them, and baste them often with butter; half an hour will roast them at a good fire; for sauce-gravy and bread sauce; when they are roasted, stick some feathers on the tail; pheasants may be larded.

## 1196. TO CHOOSE MUSHROOMS.-

 Mushrooms are very useful for sauces and made dishes, but great care must be taken to procure the right sort. Those are good which grow upon commons, but are liable to be mixed with bad ones; therefore it is best to use those from the hot bed. The upper part of the right sort are of a roundish form, like a button; the stalks, the under part, or gills, of a fine pale red, but, when broken, are very white. When they are left in the ground they grow very large and flat, and the red changes to a very dark colour. When they are small they are called buttons, and are fit for pickling; but, when they grow large, they are called flaps, and are put to other uses. Those which are of a size between the buttons and flaps are fit to use fresh. The bad sort, which are picked up amongst those that grow naturally on the common and in thofield, are not so flat at the top; the under part, or gills, is white, instead of a fine red. If they are rubbed with the fingers they turn yellow, and when pickled are never white.
1197. MUSHROOM CATSUP. - Put flap or large buttons into a pan, breaking them in pieces; strew salt over them; let them stand four or five days; mash them, and squeeze them through a cloth; boil and skim the liquor, which must be relishing ; throw in black and Jamaica pepper, a little ginger, some eschalot. Boil these together, and when cold bottle it.
1198. THINGS IN SEASON IN NO-VEMBER.-Meat.-House Lamb, Pork, Beef, Mutton, Veal.

Poultry.-Turkeys, Geese, Fowls, Pullets, Chickens, Wild Ducks, Teal, Widgeons, Woodcocks, Snipes, Larks, Dotterels, Hares, Pheasants, Partridges, Rabbits.

Fish.-Salmon, Carp, Tench, Pike, Gurnet, Doree, Holobet, Berbet, Smelts, Gudgeon, Lobsters, Oysters, Cockles, Muscles.
Vegetables.-Cabbages, Savoys, Sproats, Cauliflower, Spinach, Jerusalem Artichokes, Carrots, Turnips, Parsnips, Potatoes, Onions, Leeks, Eschalots, Beets, Parsley, Celery, Cresses, Endive, Lettuce and small Salad, all sorts of Herbs.

Fruit.-Pears, Apples, Chesnuts, Hazle Nuts, Walnuts, Medlars, Grapes.
1199. INFLUENCE OF LIGHT ON FOLIAGE. - It frequently happens in America that clouds and rain obscure the atmosphere for days together-and, during this time, buds of entire forests expand themselves into leaves. These leaves assume a pallid hue, till the sun appears, when, within the short period of six hours, of a clear sky and a bright sunshine, their colour is changed into a beautiful green. A writer in Silliman's journal mentions a forest, on which the sun had not shone during twenty days. The leaves, during this period, had expanded to their full size, but were almost white. One forenoon the sun began to shine in full brightness, and the colour of the forest changed so fast that its progress could be perceived. By the middle of the afternoon the whole of these extensive forests presented their usual summer dress.

## 1200. REVERIE.

Art thou to be shunned or courted-
Thou, the good and ill-reported-
Thou, the quarry where the mind Delves its surest wealth to find, And like sculptor o'er his stone, Moulds it till a thought be shown.
For thou hast the syren's power; In the student's lonely hour,
Thou canst lure him from his task, In thy gorgeous world to bask ; Thou canst show a spirit-home, Where ourselves may never come; Fair it is as image seemsThat bright land of waking dreams, Where we plan, intend, suggest, All that shall our strength attest; But the hours so softly flee, Sapp'd in lonely Reverie, That we need Ulysses' will To escape its dangers stillNot to dream the noon away, And in preparing lose the day.
But by some purpose fore-intended, With our inward natures blended, Though we 'list the Syren's measure, And bear away its memory's treasure, Let us be master, not the slave, Of the dear wealth its dreamings gave, And break from Reverie's control To do the deeds it shows the soul.

Camilla Toulmin.

## 1201. PRESERVING WINES ON

 DRAUGHT.-Draught wine may be preserved by emptying a flask of olive oil into the cask. The oil, spreading in a thin layer over the surface of the wine, prevents the evaporation of the alcoholic part, as well as hindering it combining with the atmospheric air, which would not only turn it sour, but also change its constituent parts.1202. ICE IN INDIA.-The method adopted by the Indians to obtain ice is very ingenious. They dig pits in the ground about two feet deep, which they line with dried sugar canes or Indian corn. On this they place very shallow dishes made of unglazed and porous earthenware, and filled with soft water that has been boiled. Thus they are deposited in the eveuing, and in consequence of the evaporation from the outside of the dishes, a considerable portion of the water is found frozen next morning. The ice is collected before sunrise, and rammed into a cellar under ground, and lined with straw, where, owing to the accumulated cold, the ice freezes into a solid mass.

## 1203. REASONS FOR THE HOUSEWIFE?

## "Shall we have gas in the house?"

This is a question very frequently asked. We quote it, just as a starting point for our explanations upon gases, and intend to answer it by saying that we have gas in the house already!

Why may it be said that we have gas in the house?

Because the air which we breathe consists of three gases, called respectively nitrogen, oxygen, and carbonic acid. Our rooms are full of these gases, and the world is surrounded by them. They form the atmosphere.
" But shall we not have gas to 3urn?"
We do burn gas already. The tallow of the candie is converted into gas; and coals are resolved into gas before they are burnt.

What gases do we burn in the fire, and the candle flame?

Hydrogen gas, the same gas which is supplied to our houses by gas companies through pipes. When gas is introduced to our rooms, and burnt from pipes, it is supplied ready made; but when we burn it from coals, candles, or lamps, we make and consume it at the same moment.

When we purchase a candle, we, in fact, buy a gas apparatus ; every candle is a kind of retort, from which gas is evolved, and the wick a gaspipe supplying a jet, at which the gas is consumed. But in this kind of gas-making we burn the gas, and also the apparatus which produces it-all except the candlestick, which is the permanent reservoir, to be re-filled from day to day for the purpose of illumination when night arrives.
Do we burn any other gas besides hydrogen?
In a popular sense, we do; in a scientific sense, we do not. Scientific men set up a distinction between burring, and supporting combustion. It is scarcely necessary here to go into an explanation of these particular distinctions.

It will be sufficient to explain that, in the burning of hydrogen gas, oxygen gas is consumed ; that is, it ceases to be oxygen gas, and unites with the hydrogen, forming water.

What is the other result of burning?
The carbon of the solid body which is burnt unites with a certain portion of the
oxygen of the air, and forms carbonic acid gas.

Burning, therefore, consists of the combination of oxygen and hydrogen, forming water ; and the combination of carbon and oxygen forming carbonic acid gas.

These results are caused by heat, and by the tendency which oxygen and hydrogen, and carbon and oxygen, have to combine with each other in certain proportions when raised to a high temperature.

While we are applying a flame to light a candle or a fire, we are simply raising the temperature of the bodies which have the tendency to combine to that degree which dissolves their union in one state, and promotes their re-union in another. Thus we are gas-makers and gas-consumers.

What other gases surround us in our dwellings?

Various gases arises from the decay of animal and vegetable matters. These are chiefly sulphuretted hydroyen and phosphuretted hydrogen gases and ammonia, which arise from drains; and carbonic acid gas, which arises from the decay of animal and vegetable substances that may negligently be allowed to accumulate.

It is obvious that we should use every endeavour to keep down, as far as possible, those unhealthy agencies, since whatever tends to corrupt the air must injure those who breathe it.

Why does old and decayed cheese promote digestion?

Because, when cheese is in a decaying state, it possesses the property, in certain circumstances, of inducing a species of chemical change in other moist substances with which it is brought in contact. It has, in fact, a soluble power, and thus assists in softening and melting the food.

Why is butter usually eaten with bread?
Because, as well as making the mastication of bread more easy by its superior mobility, the starch of the bread is much more easily digested if combined with a fatty substance than if taken alone; and so obvious is this by daily experience, that the poor man, who cannot afford butter, supplies its place with dripping, or some other form of grease, without knowing the reason that impels him to do so.

Butter on bread acts in the same man-
ner as olive oil mixed with salads. For the same reason, potatoes are improved by being eaten with fat.-The Housewife's Reason Why, 2s. 6d.: Houlston and Wright.

## 1204. NOVEMBER FOR THE BOYS AND GIRLS.

During the long evenings much sport may be elicited from a very slight acquaintance with what is called legerdemain, or sleight of hand. We have arranged a number of amusing feats, almost any one of which is easily performed. In defence of the innocent deception, practised under the head of
1205. Parlour Magio, surely nothing needs to be said. The sentiment of wonder excited among the little folks is a most healthy one. Moreover, the explanations annexed-the very directions given for the performance of the featswill have the effect of convincing our young friends that all is not gold that glitters, and that seeing is not always believing. They will also serve to induce a habit of close observation, which may be of immense importance to them in after life.
1206. Simple Deception.-The FigTrick. - Procure three figs, or plums, or any other similar eatable, and having set them upon a table, a short distance apart, put a hat over each. Now tell the company that you mean to eat the three figs, and having done so, will bring them under whichever hat they please. When you have eaten them, desire one of the company to say under which of the hats they shall be. When the hat has been named, take it, and place it upon your head, and say, "There, ladies and gentlemen, the figs are under the hat : have I not performed my promise ?"
1207. The Wager.-Desire one of the company to lend you a watch, or brooch, or any other valuable. Suppose it is a watch. You then offer to lay a wager with the owner that she will not say " my watch," three times, consecutively. (Let the stake laid be considerably less than the value of the watch.) Now, hand her the watch, and ask, "What is this ?" She will, of course, reply, "my watch." Present her with something else, as a book, or flower, asking the same question. If she says anything
but "my watch," she loses; but if she replies properly, you then add, "I see you are sure to win; but, supposing I lose, what will you give me?" If she replies, "my watch," you then put it into your pocket, and leave her the wager staked.
1208. Creeping into a Half-pint Pot. - You may preface this deception with a speech, something after the following sort: -"Ladies and gentlemen, the feat I am about to perform was, at one time, thought incredible, unless, indeed, it was understood to be practised by the power of witchcraft. It is, however, very easy, and needs no assistance from witches or wizards. I shall proceed to show you how I do it." You then take the half-pint measure, and place it upon the floor, in the centre of the apartment. It will add to the effect of the preliminary proceedings if you walk twice or thrice round the measure, and mumble some such words as-

> " Hiccius, Doctius, Propria quæ Maribus; Bingo, Bungo, Fau! Fo! Fum! Exeat, Valkeri! \&c., \&c., \&c."

Then go outside the door, and creeping into the room upon all-fours, say, "Ladies and gentlemen, this is creeping in to a halfpint pot," which nobody can deny.
1209. The Magic Circle.- Proclaim to the company that, by means of your tremendous powers of dexterity, you can place any person in the middle of the room and draw a circle round him, out of which it will be impossible for him to move, use as much exertion as he may, without first partially undressing himself. There will be a general incredulity expressed, but with a most composed countenance you will invite one to try the experiment. Make this person now stand in the centre of the room-put a bandage about his eyes; button his coat; then with a piece of chalk draw a circle round his waist outside the garment. Upon uncovering his eyes and pointing to the circle it will be evident to him that he cannot get out of the circle without partially undressing himself.
1210. The Phenomenon of all Phe-nomena.- Hold a nut in your closed hand towards the spectators, letting them see just a small portion of it, but not enough for them to detect what it is, and then tell
them that you have it in your power to exhibit to them what they have never seen, what you have never seen, what no one else has ever seen, and what, when you and they have once seen, no one else shall ever see. Desire them to guess what this wonder may be, and when they have exhausted their ingenuity, crack the nut, show them the kernel, then put it into your mouth, and having swallowed it, ask them if you have not performed your promise.
1211. Soon Tired.-Produce a stickone half the size of an ordinary walking-stick will do-and addressing any individual of the company, tell him that he will not be able to carry that stick out of the room without being completely tired. Of course he will deny your assertion. You will then ask him if he will oblige the company by putting it to the test. Upon his complying, you take the stick, and with a penknife cut off a very small piece, the size of a pin's head, and desire him to carry that out of the room. Upon his return, you give him another such piece, and you go on until he is quite tired of the process. Of course, at the rate you are going on it would take weeks to complete the task.
1212. Tricks of Skill.-The Poised Corn.-Place a polished card upon the tip of the middle finger of your left hand, and upon it place a penny-piece; let the two be nicely balanced. Then, with a smart fillip with the thumb and finger of the right hand, shoot the card from under the penny, leaving the latter poised on the tip of your finger. This would appear hard at first, but a very little practice will make it quite easy. A little boy we showed it to lately did it at the fifth attempt.
1213. The Flying Groat.-The nail of your middle finger should be anointed with a little wax. You then get a fourpenny or three-penny silver piece, and placing it in the palm of your hand, exhibit it to the company, saying that you have but to command it and the coin will vanish. Close your hand, pressing the wax on the groat, then rapidly open it, and the piece will adhere to the wax, and be concealed behind the finger when the hand is held up with the palm towards the company.
1214. To Crack Walnuts with your Elbow.-Having selected a very hard walnut, you contrive to conceal it in your
right hand, while you take two other walnuts from the plate; place one of them on the joint of your arm, and say that you are going to crack it by the mere force of your muscles. Close your arm, and give it a smart blow, as if to assist the process, at the same time pressing the two nuts in your hand together with sufficient force to crack one of them. The company, hearing the crack of a nut, will imagine it is the one upon your arm; then open your arm gently, slip away the whole nut, and exhibit the cracked one. It will readily appear that you have performed your promise. A little practice is necessary for this, as well as for most of the other tricks, but a very little will suffice.
1215. To take Feathers out of an Empty Handkerchief.- Borrow half adozen ostrich feathers ; take off your coat, and bestow them smoothly along your arm, with the stem towards your hand. Put on your coat again. Borrow a handkerchief from one of the company, and display it to show that it is quite empty. Throw it over your left arm, and with your right hand draw out one of the plumes from under your coat-sleeve, at the same time giving it a flourish in the air to remove any appearance of its having been in a cramped position. Put your feather into a vase, or stick it into a hole in the table, and again throw the empty handkerchief over your arm, and repeat the trick. When all the feathers are displayed they will make a great show, and appear much too bulky to have been concealed in your sleeve.
1216. The Knotted Thread.-You may astonish your friends by drawing a thread, double or treble-knotted, through a piece of cloth or cambric, without any obstruction being caused by the knot, in the following manner :-Have a piece of thread, about eight or ten inches long, twisted about the tip of one of the fingers of the left hand. Upon this finger you should place a thimble, the better to conceal the thread. One end of this thread should be available to make a knot on. Thread the needle with a similar piece. The thread in the needle must have one of its ends drawn up close, and this must be concealed between the fore-finger and thumb; the other end should hang down by the side of the thread which is fastened under the
thimble. These two will then appear the true threads belonging to the needle. You now make, with great parade, a double or treble knot-of course, this is in the false end-and then commence to sew; sew away rapidly, and the knotted thread will appear to have been passed every time through the cloth.
1217. Magical Amputation.-Have a knife with a gap in the middle of the blade. This gap you will carefully conceal from the company with the fore-finger of the right hand. Then place the knife across your hand or nose, and they will appear to be half cut off.
1218. The Knot Dissolved.-Tie an ordinary knot-single, not double-upon a handkerchief, and give one end of it to one of the company to hold, telling him that he cannot pull the knot so tight but you will be able to dissolve it with a word. When he pulls, you utter some hocus-pocus, and slip the thumb of your left hand into the knot, as shown in the cut. The handker-


Fig. 1.
enief will then be pulled out straight, and the knot will disappear.
1219. The Wonderful Filter.-We well remember with what wonder we first witnessed the performance of this trick; yet it is a very simple one. You place before the company a vase full of ink. To assure the spectators that it really contains ink, a ladle is dipped into the vase, and a portion of the ink poured out upon a dish, and sent round for inspection. You then throw a handkerchief over the vase, and instantly withdraw it, ien the vase is found to contain pure water, in which a number of gold-fish are swimming. The mystery is thus solved:-A lining of black silk is made to fit the interior of the vase with the greatest exactness. The water
with which this is filled keeps the lining in its place. The ladle is made with a tubular handle, into which a few spoonsful of ink is poured. When dipped into the vase, the ink flows down the handle into its bowl, and is poured out. In withdrawing the handkerchief, the lining is also withdrawn, and all is complete.
1220. The Handcupfs Unfastened. -Two persons tie their hands together with two pieces of string, as shown in the cut, so


Fig. 2.
that the strings cross. The problem is to free themselves without untying any of the knots. This will cause a considerable deal of manœuvring, and it will, probably, be some time before the right method is found out. It is done as follows:-A gathers up the middle part of the string that binds him, and slips it under the noose on B's wrist. Through this noose, if B's hand is put, the handcuffed parties will be free.
1221. The Wonderful Wafers. This delusion, which is a very amusing one, and one which, if well performed, causes much wonder, depends entirely upon the rapid way in which the knife is turned in the hand. This part of the trick should be practised well by the young performer before exhibiting it before company. On each side of an ivory paper-knife place, or let one of the company place, three wafers. These should be all of the same size and colour. Exhibit the knife well, to show that there are really three wafers at each side. Now desire some person to remove one of the wafers from one side of the blade ; turn the knife twice, and there will appear to be only two wafers on each side.

Have another wafer removed from the same side, and again turn the knife twice: there will now appear only one on each side. Remove a third wafer; turn the knife rapidly twice, and the wafers will appear to have all disappeared. The secret is in turning the knife between the finger and thumb so dexterously, that two circuits are made where only one is sus. pected, and the side upon which the wafers remain being kept always out of sight. This is not so hard to do as it may be imagined.
1222. The Self-supporting Pridge. -Set three glass tumblers, or three cups, or gallipots, upon the table, in the form of a triangle, as shown in the cut, and arrange


Fig 3.
upon them three knives. No. 1 thus rests upon No. 2 ; No. 2 upon No. 3 ; and No. 3 upon No. 1. Such a bridge will bear considerable weight.
1223. The Tripod of Pipes.-A similar trick to the preceding may be performed with three tobacco pipes. Procure three nice, clean clay pipes ; these are better than any others, as their evident fragility tends to make the result more remarkable. Place


Fig. 4.
the first of them bowl downwards, and let its stem be supported upon a second, placed
similarly. The third pipe is placed so as to complete the triangle-its bowl supporting the stem of No. 2, and its stem resting upon No. 1. This little tripod, notwithstanding the brittle materials of its structure, will support a considerable weight.
1224. To Lift a Bottle with a Straw.-Get a thick, strong straw, of about three times the length of the bottle with which you intend to experiment; bend the thicker end of it in a sharp angle, as shown in the cut. Put this bent end into


Fig. 5.
the bottle. When the doubled part has reached below the neck, it will open, and form a hook. You have then only to raise the bottle by the other end. Care must be taken that the straw selected is not bruised, or bent, otherwise than as you mean it to be, or it will fail in raising the bottle.

## 1225. PAIN IN PLEASURE.

A thought lay like a flower upon mine heart, And drew around it other thoughts, like bees For multitude and thirst of sweetnesses; Whereat rejoicing, I desired the art
Of the Greek whistler, who to wharf and moor Could lure those insect forms from orange trees, That I might have with me such thoughts, and please
My soul so always. Foolish counterpart
Of a weak man's wishes. While I spoke,
The thought I called a flower, grew nettle rough-
The thoughts called bees, stung me to festering. Oh entertain (cried Reason, as she woke) Your best and gladdest thoughts but long enough,
And they will all prove sad enough to sting.
Elizabetif B. Browning.

## 1226. MEDICAL SURGERY.

Fainting Fits.-These distressing affections are often the consequence of hysteria, the patient complaining of a suffocating feeling in the throat, as if from the presence of a ball or some actual obstruction. A sudden and unexpected slap between the shoulders will often produce an instant recovery, by exciting the nervous system and quickening the circulation. Where this, however, is not sufficient, and the syncope or fainting takes place, the stays and all strings about the dress loosened, the hands and arms should be rubbed, burnt feathers applied to the nostrils, with smelling salts or fumes of hot vinegar, and a draught given every ten minutes, composed of half a teaspoonful of spirits of lavender, with twenty drops of sal volatile and ether in a little water; placing bottles of hot water to the soles of the feet. At the same time cold water is to be dashed on the face every few minutes, drying the countenance before each fresh application. The head, of course, should be elevated, and if the patient has been lying down, raise the body to a sitting posture, and vice versa.
1227. General Facts connected with the Blood. - Where a sudden and relaxing effect is wanted, as in a case of inflammation or dislocation, the patient should be bled standing, and from a large opening; and when bleeding cannot be adopted, the same effect can be produced on the heart by giving one grain of tartar emetic, which, without inducing vomiting, excites a powerful degree of nausea. The circulation of blood through the brain varies with the posture of the body: in the erect position the heart, in its propelling action, has to overcome the force of gravitation in the blood, and according to the strength or debility of the patient, the flow will be vigorous or torpid; but in the horizontal position there is little or no resistance to overcome. Hence, where the heart is feeble from a diminished circulation, a sudden change, from the recumbent to the perpendicular position, will sometimes cause fatal syncope; on the other hand, a patient who has fainted in the erect posture, is quickly restored by placing him on his back; and as a general rule, whenever there is great arterial action in the brain, as in apoplexy, that position should be adopted
which will retard the flow of blood to the part, as elevating the head and shoulders; and in cases of much debility, the body should be reclined, or placed in the horizontal attitude.
1228. Whitlow.-Whitlows are very painful deep-seated abscesses, in general confined to the fingers, and usually the last joint of the finger. The distinctive feature of whitlow is, that, unlike other suppurations, the matter forms deep, under the fascia and muscles, and often in the sheath of the tendon that moves the finger. From this cause, the unresisting nature of the part, and the difficulty of the pus or matter reaching the service, the pain is very protracted and intense, attended with a dry burning heat and pulsating throbs of acute anguish. As these symptoms, with great tenderness and pain of the surrounding parts, continue long before the matter shows on the surface, the best course to pursue, after having poulticed well with bran, is to cover the extremity, or tender part of the finger, with a good rubbing of lunar caustic, and renew the poultices; repeating the caustic if necessary till the abscess is fit to open, when it should be lanced freely, encouraging the after discharge by hot linseed meal poultices.
1229. Bites of Dogs or Cats.-When such injuries have been inflicted through a boot, trousers, glove, or any thick material, even supposing the animal to be rabid, there need be little apprehension, as the substance through which the bite has been given must have cleansed the teeth of the virus or poison that might have been upon them. In this case, wash the punctures with warm water, cauterise both apertures with lunar caustic, and apply a hot bran poultice, keeping the part at perfect rest. When the bite has been at once into the flesh, but from healthy animals, apply a pledget of extract of lead, place over it a large poultice, and lay the limb up to rest.
1230. External Remedies or Appliances - Bandages, Baths, Poultices, Emetios, Splints.
1231. BANDAGES are strips of linen, calico or flannel, rolled tightly up, and varying from one to five inches in width, and from three to twelve yards in length, and are divided into what are called single or double-headed rollers. For injuries to the
finger, or the hand of children, the roller should be about an inch wide by four yards long. For the leg or arm, the bandage should be two and a-half inches wide by a length of nine yards; and for the trunk or body, about four inches and twelve yards.
1232. In applying a bandage, the roller should be held firmly in the hollow of the hand, the loose end being grasped between the fingers and thumb of the right hand. The application must commence at the extremity of the limb, making the hand or foot the starting-point, and passing the roller from hand to hand, as the limb is enveloped, every fold being made to overlap the former by a third of the width. As the limb increases in bulk the bandage must be made to fold back on itself, by a double of the cloth. The tightest part of the bandage should be at the commencement, with a very gradual slackening as it proceeds.
1233. A double-headed roller is only a bandage rolled from both ends to the centre, and used chiefly for accidents to the head, or as a uniting bandage for deep cuts on the extremities.
1234. Baths are either hot, warm, tepid, or cold. As few persons are possessed of a thermometer to test the temperature of a bath required in an emergency, the proper heat must be judged from the sensation of the attendant's hand, the thin cuticle, on the back of the hand, being a very good common index of what the body can bear, or of the heat required. Except in cases of suspended animation, when the patient must be kept in the water for ten or fifteen minutes, the body is never to be allowed to remain over five minutes-as if, in that space the effect for which the bath was employed is not produced, a longer stay only relaxes the frame and produces exhaustion. It is the sudden emersion that produces the benefit, and that effect obtained, the sooner the patient is removed the better. As a general guidance, a hot bath may be made by an equal mixture of boiling and cold water, with an after addition of a few pints of cold, if the temperature is too high; a warm bath, by one part of boiling to two of cold water; a tepid bath, by one of boiling to three of cold water; a shower bath is easily ex-
temporised by a watering-pot; while for sun-stroke and cases of apoplexy, a very excellent aspersion for the head is produced by a person standing on a chair, and pouring from a large jug a heavy stream of water on the head of the patient seated below.
1235. Poulitices.-As heat is the object for which all poultices are applied, those articles are the best for the purpose which will longest hold the heat; for this reason bread, linseed-meal, flour, turnips, and other articles, are generally employed. When bread is used, a thick slice, the size of the part for which it is to be used, should be placed in a plate on a piece of muslin, and sufficient boiling water poured on it to saturate without breaking the bread. Press out the excess of water, and apply the poultice unbroken to the place affected.
1236. In mixing linseed-meal, enough boiling-water must be poured at once on the meal, to make it into a thick porridge, as, from the oily nature of the powder, the utmost difficulty is experienced in mixing any second addition of water with the previous paste. This is best spread on flannel, and must be applied without any intervention to the skin. Mustard poultices are either made of all mustard, or equal parts of mustard and flour. Whichever is used it must be mixed with hot water, spread on flannel, and, like the last, applied without protection to the skin. But in no case is a mustard poultice to be kept on for more than twenty minutes, the average time being ten minutes for an adult, and not more than five for a child.
1237. But good as most of these are, except the mustard, which is used for a special purpose, they are all surpassed by the ease and cleanliness of the bran poultice. This useful poultice is made by putting one, two, or more handsful of bran into a small bag, and sewing up the end, so as to make it resemble a long or short pincushion; it is then immersed in boiling water, roughly squeezed out, and applied wherever required. When used for the neck, the leg of a stocking, sewed at both ends and filled with bran, makes an admirable poultice, or fomentation ; for, as soon as cold, it has but to be dipped in hot water to be again fit
for use, such a poultice lasting a whole day without changing the bran.
1238. Emetics.- Where there is time to - procure a proper emetic, a scruple of ipecacuanha with one grain of tartar emetic, mixed in a little warm water, makes an excellent vomit for a robust man ; and where the relaxing effect of nausea is demanded, two grains of tartar emetic alone makes an effective emetic. Where a very quick emetic is required, from twenty to thirty grains of white vitriol, or sulphate of zinc, is to be given in warm water. If these are not procurable, mix a tablespoonful of mustard in a breakfast cup of warm water, and while the patient holds his nostrils compressed with his fingers, he must drink the whole at a draught; for it will be difficult to induce him to return to the potation if not swallowed at the first gulph. When no emetic can be procured, titillate the root of the tongue and throat with a feather ; or take a good drink of salt and water, hot.
1239. Of Splints and their application we have already spoken, under the head of fractures. Softened pasteboard always making a very good substitute.
1240. The Liquor Plumbi, liquor of lead, or extract of lead, of which so much has been said, must be obtained pure and unadulterated, and used in the the same state, as all its curative and astringent properties depend upon the purity of the article. For weak, running, or an inflammatory state of the eyes, mix sixty drops of the extract with four ounces, or a quartern of rose or elder flower water, and bathe the eyes three or four times a day with this lotion, which, if made with common water, is called Gouland's, or Goulard lotion.
1241. Violet Powder, or baby's powder, makes the best dressing for a blister, after having first poulticed the place for a few minutes. Instead of the ointments generally employed for the healing process, dust the blistered surface frequently with violet powder; and thepain and tedium usually attending the healing of a blister will be quite avoided.
1242. Excoriations, from whatever cause, should be treated with the violet powder, which, with a puff, should be dusted freely over the part, or gently rubbed into the cuticle, as in the case of chapped hands, every time after washing and drying.
1243. Miscellaneous Facts.-Infantine Fits. - From the birth, till after teething, infants are more or less subject or liable to sudden fits, that often, without any assignable cause, will attack the child in a moment, and while in the mother's arms; and which, according to their frequency, the age and strength of the infant, are either light or dangerous. Whatever may have been the remote cause, the immediate one is some irritation to the nervous system, causing convulsions, or an effusion to the head, inducing coma. In the first instance, the infant cries out with a quick, short scream, rolls up its eyes, arches its body backward, the arms become bent and fixed, and the fingers parted, the lips and eye-lids assume a dusky leaden colour, while the face remains pale, and the eyes open, glassy, or staring. This condition may, or may not, be attended with muscular twitchings of the mouth, and convulsive plunges of the arms. The fit generally lasts from one to three minutes, when the child recovers with a sigh and the relaxation of the body. In the other case, the infant is attacked at once with total insensibility, and relaxation of the limbs, coldness of body and suppressed breathing; the eyes when open are dilated, and present a dim, glistening appearance; and the infant appears, for the moment, to be dead.
1244. Treatment.-The first step, in either case, is to immerse the child in a hot bath up to the chin; or if sufficient hot water cannot be procured to cover the body, make a hip bath of what can be ob. tained, and while the left hand supports the child in a sitting or recumbent position, with the right scoop up the water, and run it over the chest of the patient. When sufficient water can be obtained, the spine should be briskly rubbed while in the bath; when this cannot be done, lay the child on the knees, and with the fingers dipped in brandy, rub the whole length of the spine vigorously for two or three minutes, and when restored to consciousness, give occasionally a teaspoonful of brandy or wine and water. Where the head is affected, as in the comatose cases, it may be necessary to put mustard to the feet to restore the circulation through the head; but whether or not, a blister behind the neck will be necessary to relieve the
brain, and prevent a recurrence of the fits. As the irritation to the system, by teething, the crudity of food, or the effect produced by the presence of much bile in the body, are most frequently the cause of these fits, it will be necessary, as soon as the child is recovered, to give such aperient medicine as will carry off the two last causes of irritation; for this purpose give a powder every four hours, marked No. 494, and from half to a whole teaspoonful of the following mixture every three hours:-
1245. Carminative Mixture.-Take of lump sugar, one drachm and a-half; oil of aniseed, oil of peppermint, of each two drops; water, two ounces. Rub these into a smooth mixture, and then add spirits of nitre, twenty drops; tincture of assafoetida, four drops; carbonate of magnesia, two scruples. Mix. This will be found an admirable carminative for all conditions of childhood.
1246. Diarrheas, in children, ought to be attended to at once, as infants are found to sink most rapidly from the effects of a diarrhœea that had been regarded as of no consideration; and often not guarded against till the vital energies have sunk beneath the power of restoration, from the absence of all apparent cause of alarm.
1247. Agreeable with the statement we made, in beginning these medical papers, to keep to practical information, and advise nothing but what experience dictated as simplest and best, we now propose concluding them, with an easy and efficacious mode of curing diarrhœa, the result of a very large and very varied experience, and which any mother may adopt with perfect safety, and every confidence of success.
1248. According to the age, from six weeks to twelve years, give from five drops to a large teaspoonful of the tincture of kino in a little syrup, or sugar and water, repeating the dose three times, if required so often, after an interval of half an hour. Two days after, carry off the crudity that caused the diarrhœa by an aperient powder, and if attended with griping, a dose of the carminative mixture, and the diarrhœea and its cause will be perfectly cured.
1249. THE OLD IRISH SAILING PACKET.-This vessel, says Mrs. Hall,
was a small trader, schooner, or sloop; the cabin, of very limited extent, was lined with berths, a curtain portioned off those that were appropriated to ladies; in the centre was a table, seldom used, the formality of a dinner being a rare event, each passenger having laid in his own supply of sea store, to which he resorted when hungered or athirst, finding, however, very often, when his appetite returned, that his basket had been impoverished by the visits of unscrupulous voyagers who were proof against seasickness. The steward was almost invariably an awkward boy, whose only recommendation was the activity with which he answered the calls of unhappy sufferers, and the voyage across was a kind of purgatory for the time being, to be endured only in cases of absolute necessity. It was not alone the miserable paucity of accomodation and utter indifference to the comfort of the passengers, that made the voyage an intolerable evil; though it usually occupied but three or four days, frequently as many weeks were expended in making it. It was once our lot to pass a month between the ports of Bristol and Cork, putting back every now and then, to the wretched village of Pill, and not daring to leave it for an hour, lest the wind should change, and the packet weigh anchor, But with us it was holiday time, and our case was far less dismal than that of an officer, to whom we recently related it, his two months' leave of absence had expired the very day he reached his Irish home.
1250. HOUSEHOLD BREAD. - Mix four ounces of salt, three quarts of water, a pint of yeast, and a peck of second flour, in a trough; when properly fermented, knead and divide it into loaves. Sometimes a portion of rye-meal, rice-flour, or boiled potatoes, are mixed with the flour, previous to the kneading; the two former serve to bind the bread, the latter cause it to be open and spongy.
1251. THE BEST OATS ARE ALWAYS THE CHEAPEST.-Oats weighing 301 lbs . per bushel, contains 16 lbs . of meal, and 14lbs. of husk. Those at 36 lbs . per bushel contain upwards of 201 lbs . of meal, and less than 16lbs. of husk; and as the weight increases, the proportion of the meal to the busk is often greater.
1252. PHENOMENA OF NOVEMBER.
"Hung o'er the farthest verge of heaven, the sun
Scarce spreads through ether the dejected day;
Faint are his gleams, and iueffectual shoot
His struggling rays, in horizontal lines,
Through the thick air; as clothed in cloudy storm,
Weak, wan and broad, he skirts the southern sky;
And soon descending to the long dark night,
Wide-shading all the prostrate world, resigns Nor is the night unwish'd; while vital heat, Light, life, and joy, the dubious day forsake. Meanwhile, in sable cincture, shadows vast
Deep-tinged and damp, and congregated clouds,
And all the vapoury turbulence of heaven,
Involve the face of things. Thus, Winter falls,
A heavy gloom oppressive o'er the world.
Then comes the Father of the tempest forth,
Wrapt in black glooms. First, joyless rains obscure
Drive through the mingling skies with vapour foul;
Dash on the mountain's brow, and shake the woods,
That grumbling, wave below. The unsightly
Lies, a brown deluge; as the low-bent clouds
Pour flood on flood; yet unexhausted, still
Combine, and, deepening into night, shut up
The day's fair face." Thomson.
1253. The short dark days and the cold nights tell us that winter has come in the train of the yellow autumn. Plants and annuals alike seem dull, and many assume the aspect of death. Rattling hail or more penetrating sleet comes pelting pitilessly into the face of the poor pedestrian, or hisses down the chimney, where the fire, rendered necessary by the inclemency of the season, flickers before the family circle. Far away in the country desolation seems to reign. The wind comes howling and mourning over the heath, or knocks the leafless boughs of the trees together with a dismal noise. Nature has changed her habit of joyful green for a robe of sombre russet, and the songsters all save the cheerful robin-are dumb.
1254. The fogs and mists of October and November are the terrestrial phenomena which are most noticeable in our climate, and which are a kind of reproach to us in the eyes of foreigners, living in latitudes where the temperature does not usually descend so low. The vapour of water, when completely taken up or dissolved in the air, is invisible; indeed, the atmosphere can hardly
ever be said to be without a considerable quantity of water dissolved in it. At any time, a glass containing a freezing mixture will be found to condense upon its sides the water which has hitherto existed unseen in the surrounding vapour. If you observe the cloud of steam from a locomotive, as it dashes on its iron way, you will perceive that the cloud, at first, is very thick, but that it gradually fades, till at last it " vanishes into thin air." The vapour of water, however, is only invisible when the air is of as high a temperature as itself; for when the temperature of the air becomes lower than the point at which water can preserve its vaporous form, the latter becomes visible, and forms a mist or a fog.
1255. Water, in the form of transparent steam or vapour, is continually rising into the atmosphere at all usual temperatures; even at, or below the freezing point, from ice and snow, evaporation goes on, for these solid substances gradually disappear without becoming liquid, when the atmosphere is dry. Yet heat is the sole cause of the conversion of all liquids into vapour, and solids into liquids. Ice melts at the fireside, as also wax and tallow; the average temperature of the air is sufficiently hot to keep water in the fluid condition, but it is cold enough to freeze wax, tallow, lead, and iron.
1256. The quantity of vapour given off by water is (other things being equal) in exact proportion, therefore, to the temperature of the atmosphere; and hence it is that the earth soon dries in summer, while the surface remains wet for a long while in winter. Just as hot water will dissolve more sugar than the same quantity of cold, so heated air will take up or absorb more water than cold air. Hence, there is more water in the air in summer than in winter, and in hot than in cold climates. But some one may say, "The weather is very damp in winter." This sense of damp arises from the fact that the vapour of water is in the act of condensation, or, in other words, that mist or rain is about to be formed, on account of the coldness of the air.
1257. So completely is evaporation regulated by temperature, that we find the quantity of vapour in the air diminishes in a regular proportion from the equator to
the poles. This will appear at first sight contradictory, inasmuch as it asserts that the atmosphere contains more moisture over the great African desert of Zahara than over the fens of Lincolnshire. Any expansion of the air is accompanied with a readiness to absorb water. If a shallow saucer, containing water, be placed under the receiver of an air-pump, and a part of the air removed, a considerable part of the fluid will rise under the glass, but will be quite invisible; but if the outer air be suddenly admitted, the internal air will be condensed, and the moisture which it had taken up will form a mist, and collect like dew upon the sides of the receiver. As the quantity of vapour which the air will contain at any time is limited by the state of expansion of the latter, and this expansion always depends upon heat under natural circumstances, we are only strengthened in our view that the quantity of vapour of water in the air is regulated entirely by temperature. If the air be saturated with moisture, the abstraction of heat will make it contract and deposit some of the water as vapour, or cloud, or dew, or rain, in proportion as the reduction of temperature is great or little, gradual or sudden.
1258. In so changeable a climate as ours, there is a frequent tendency to destroy the transparency of the air, owing to the causes just named, and our atmosphere is rarely clear. But in early morning, soon after sunrise, if there has been a heavy dew (which means that the moisture of the air has been precipitated), before the sloping rays of the sun have had power to raise new vapours by evaporation, the air may often be discovered perfectly transparent even at this season of the year. On such occasions the view has a singularly beautiful appearance, owing to the sharpness of the outlines of the details of the landscape.
1259. When the vapour has been accumulated in a great quantity in the air, and a sudden and considerable reduction of temperature takes place, a fog is produced, which is, in fact, a cloud too heavy to float, and which rests upon the earth. The London fogs are proverbial; but in all large towns, especially those in which manufactures are carried on, there are similar phenomena. Their peculiarity consists in their being compounded of
smoke and vapour, which gives them greater density than ordinary mists, and causes them to feel more unpleasant to breathe. At these times, if the observer walks a few miles beyond the houses, and gains the summit of a hill, he will find the sky clear and the air transparent; while in the house-crowded valley lies the fog, like an outspread garment, or a patch, of snow, or a lake-with the spires and chimneys, and here and there the housetops peeping up through it above the level.
1260. When the days become short, and the rays of the sun have very little time to warm the earth, the surface becomes very cold, and the air which is in contact with it deposits the moisture which it before contained ; thus arises DEW,-
"Of bloom ethereal, the light-footed dews."
Dew is deposited in the form of minute globules, whenever the ground is colder than the air; but upon these occasions the air does not lose its transparency. Sometimes the air contains so little moisture that, although the earth becomes very cold, little or no dew is deposited. It is, moreover, rarely deposited in any considerable degree when the weather is windy or the sky is clouded. It is more plentiful in spring and autumn than in summer, probably owing to the greater difference in the temperature between the day and night in the two former, especially autumn. It is also more copious on those clear and calm nights which often occur early in November, and which are followed by misty or foggy mornings; or when a clear morning succeeds a night which was clouded in its first hours. When the clearness and stillness of the atmosphere are the same, more dew is formed between midnight and sunrise than between sunset and midnight. The cause of this is, evidently, that during the former part of the night the earth had not so completely given up its heat as it has during the hours after midnight. If, however, clouds hang in the sky, the heat which otherwise would be radiated away without any return, is reflected back again to the ground, and less dew is then to be found. This radiation of heat, and production of cold thereby, are the subject
of the following curious observations by Dr. Wells, which are not inappropriate here:-
1261. "I bad often," he says, " in the pride of half-knowledge, smiled at the means frequently employed by gardeners to protect tender plants from cold, as it appeared to me impossible that a thin mat, or any such flimsy substance, could prevent them from attaining the temperature of the atmosphere, by which alone I thought them liable to be injured. But when I had learned that bodies on the surface of the earth become, during a still and serene night, colder than the atmosphere, by radiating their heat to the heavens, I perceived immediately a just reason for the practice which I had before deemed useless."
1262. Dew forms in very different quantities, under the same circumstances, upon different materials;-on metals sparingly, because they radiate heat imperfectly, but upon animal substances copiously, because they part with their heat more rapidly. And in conformity with the theory of radiation, it is observable, likewise, that whatever diminishes the view of the sky, as seen from the exposed body, occasions a less deposit of dew upon it than upon bodies not so protected.

## 1263. SOUNDNESS OF THE LUNGS.

 -The following is one of the most unmis. takeable tests of the soundness or unsoundness of the lungs. The patient is directed to draw in a full breath, and then begin to count, as far as he can, slowly and audibly, without again drawing his breath. The number of seconds he can continue count.ing is then to be carefully noted. In confirmed consumption the time does not exceed eight seconds, and often less than six. In pleurisy and pneumonia it ranges from nine to fourteen seconds. But when the lungs are sound, the time will reach as high as from twenty to thirty-five seconds.
1264. A CHILD'S INQUIRIES. - In my early childhood I slept in a little cot in Owley's room. One night I was awoke, just as she was stretching out of bed, with the extinguisher in her hand. "Owley," said I-so she drew back, and turned her face, which was buried in a superfluity of snow-white cap-borders, towards me. "You awake, at this time of night?" she exclaimed. "What do you want ?" "I want to know, Owley, where the light will go when you put out the candle?" Owley paused, and for a few minutes felt spellbound; her hand, the extinguisher, the candle-there they were-immovable! Something must have flashed across Owley's mind; she was about to do a thing she had done many thousands of times before, but had given no heed to ; yet in that act, so many times performed, she had suddenly recognised some impenetrable mystery. "Owley," said I, again, "what are you stopping for ?" The extinguisher immediately dropped upon the candle, and she muttered, in a low tone, " go to sleep." I have often thought of that circumstance, and feel convinced, after a large acquaintance with the world, that there are many, from whom better things might be expected, who, when inquiring minds ask them for knowledge, only mutter, as poor old Owley did, "go to sleep!"-The Housewife's
Reason Why.

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Hack


[^0]:    London: J. \& W. Rider, Printers, 14, Bartholomew Close.

[^1]:    "Here's a pretty thing, and a very PRETTY THING, AND WHAT SHALL THE OWNEE OF THIS THING DO?"

[^2]:    * The new work " The Reason Why," gives an admirable exposition of this subject.

[^3]:    * A fact. A Manx peasant girl was thus overtaken by the tide, and was found the next morning with her hair braided in the sea-weed.

[^4]:    * See "The Reason Wly."
    + From the Latin word bractea, a thin leaf of
    metal.

[^5]:    * Vases and tanks of a superior quality may be obtained of Messrs. Clandet and Houghton. 89, High Holborn (Figs. 1, 3, and 6, are from their designs) ; Messrs. Treggon and Co., 57, Grace-church-street; Messrs. Saunders and Woolcott, 54, Doughty-street, Foundling ; Mr. H. J. Bohn, ${ }_{45}$, Essex-street, Strand; and of the dealers in aquatic plants and animals.

[^6]:    I envy them, those monks of old, And when their statues I behold, Carved in the marble, calm and cold,

    How true an effigy !

[^7]:    * Teething, and such other affections, as infancy and early childhood are liable to, we proin an article and speaking of more in detail, in an article we shall appond to these in detail, ment and care of infants.

[^8]:    Fruit.-Currants, Plums, Peaches, Pears,

[^9]:    "In plumage delicate and beautiful, Thick, without burden; close as fishes' scales, Or lose as full-blown poppies in the breeze With wings that might have had a soul within them,
    They bore their owners with so sweet enchantment."

[^10]:    J.\&W.Rider, Printers, Bartholomew Close, London.

