

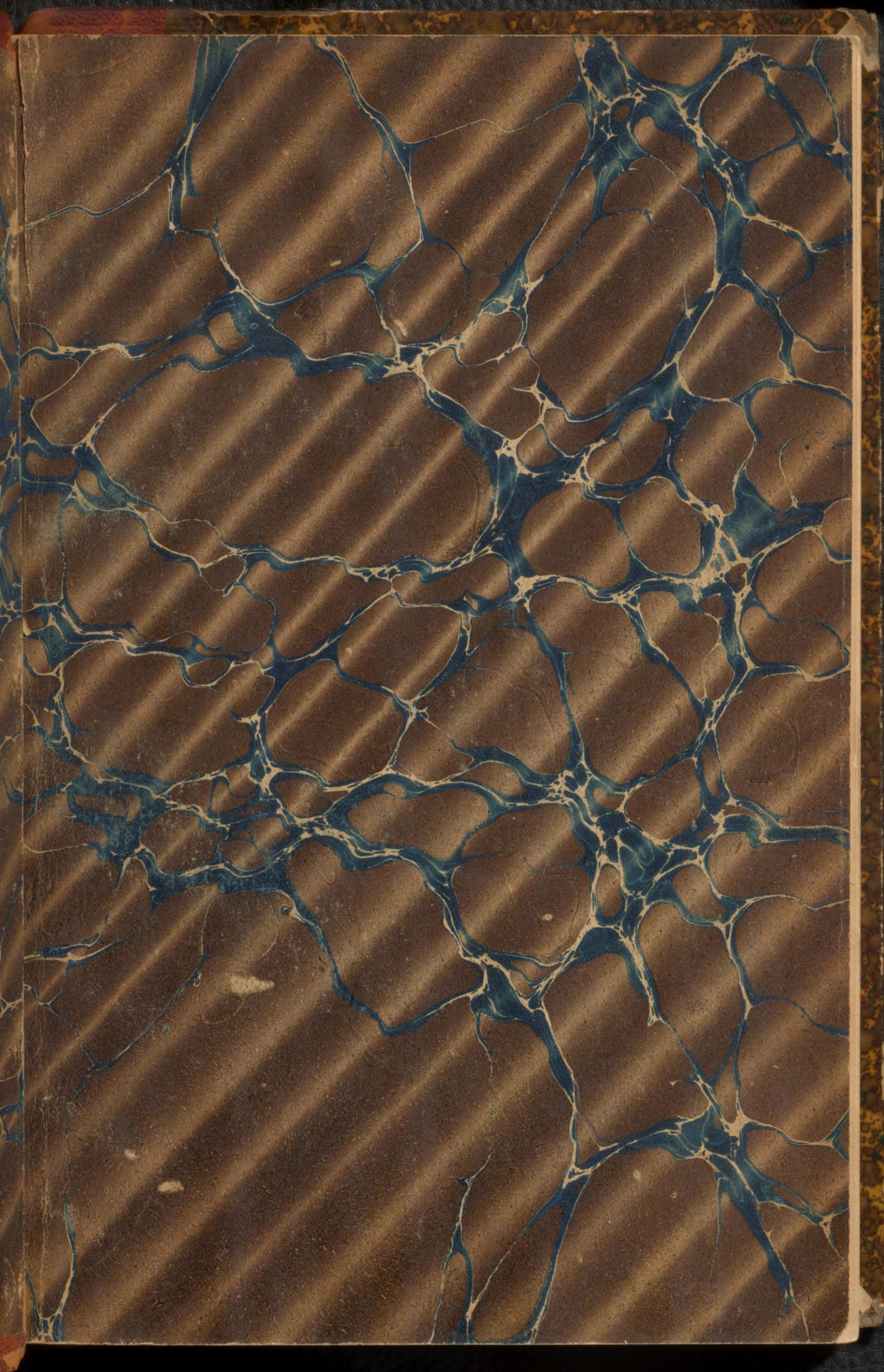


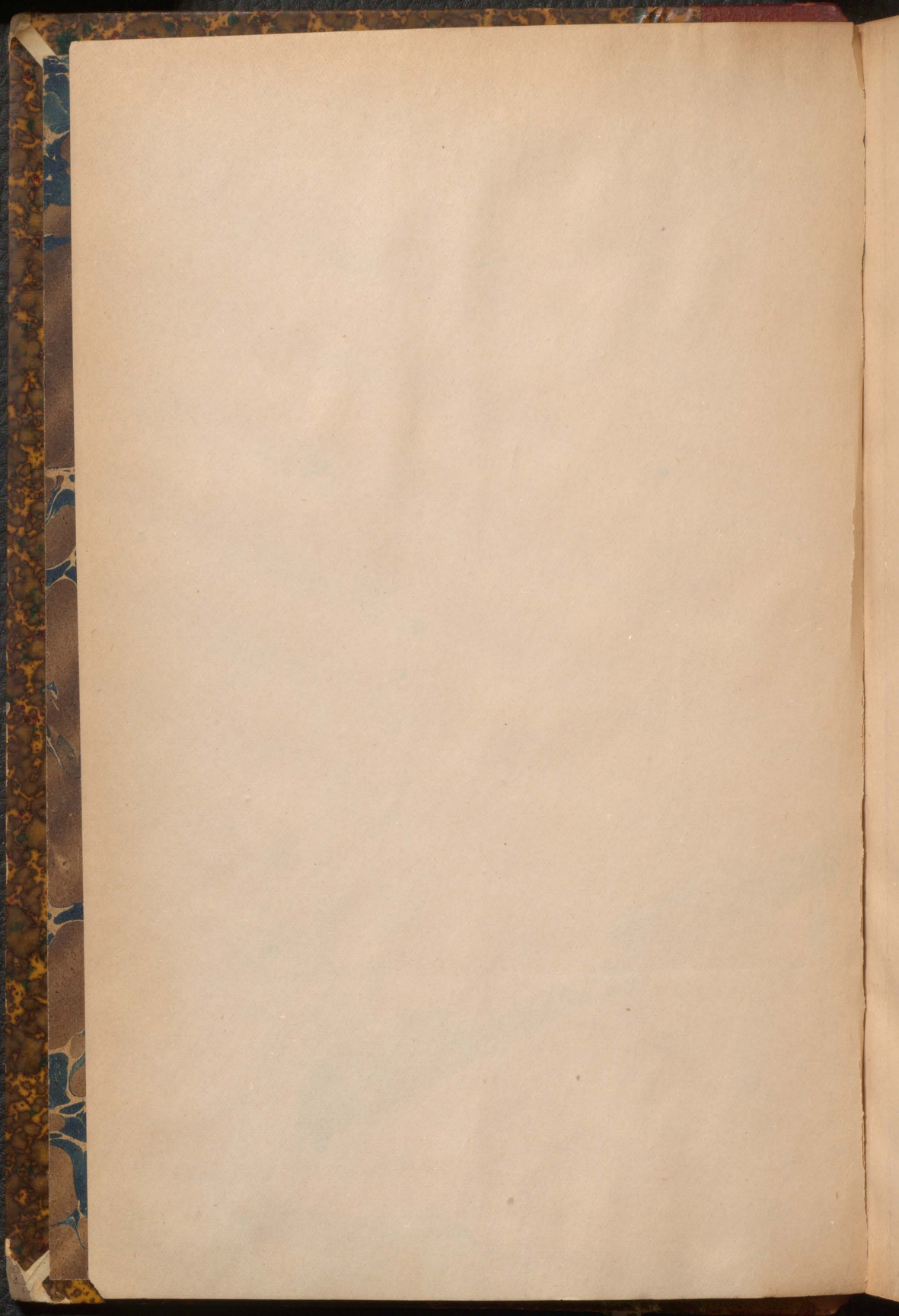


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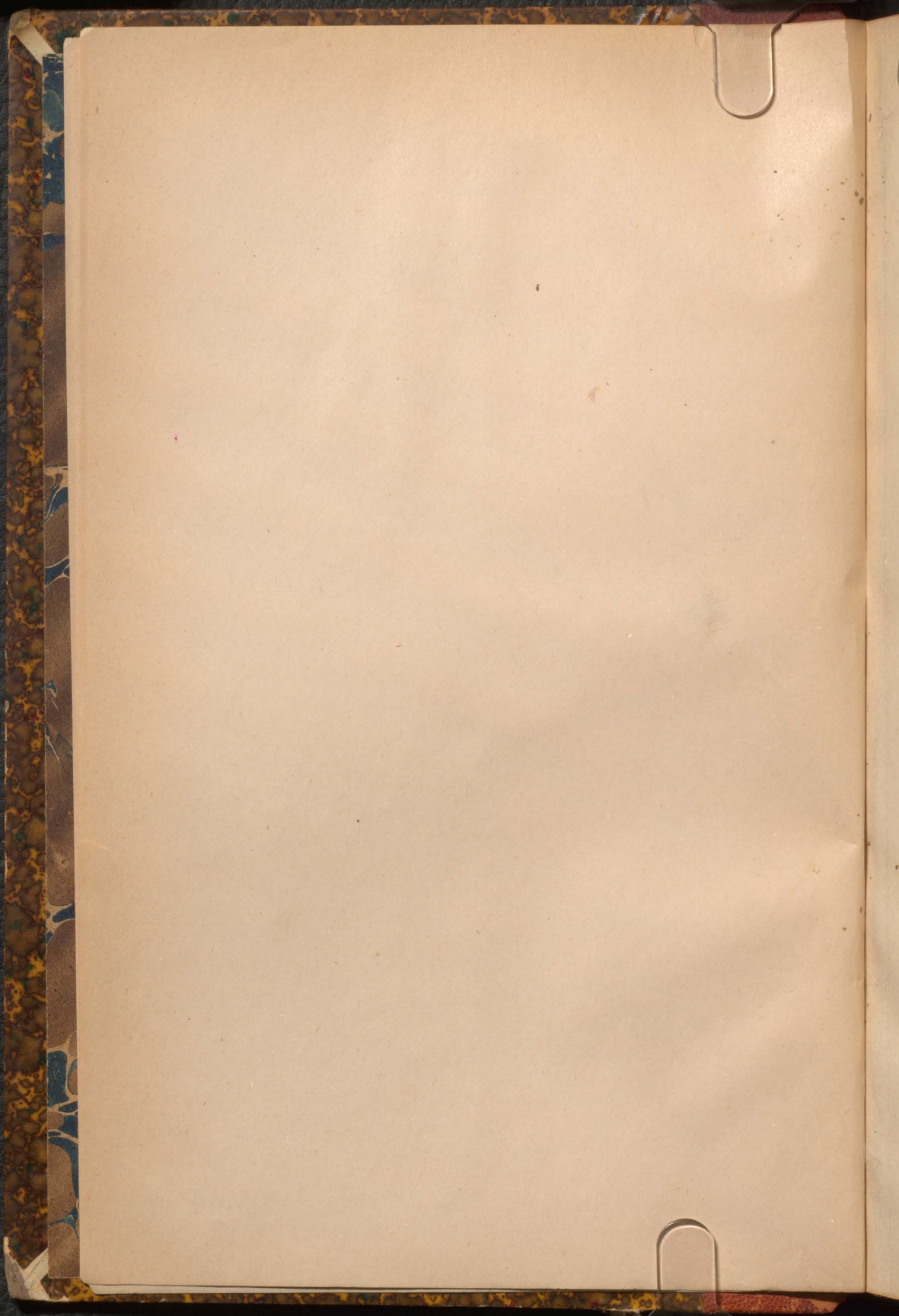
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THE HERALD OF HEALTH.

M. L. HILL, M. D., Editor.



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THE HERALD OF HEALTH.

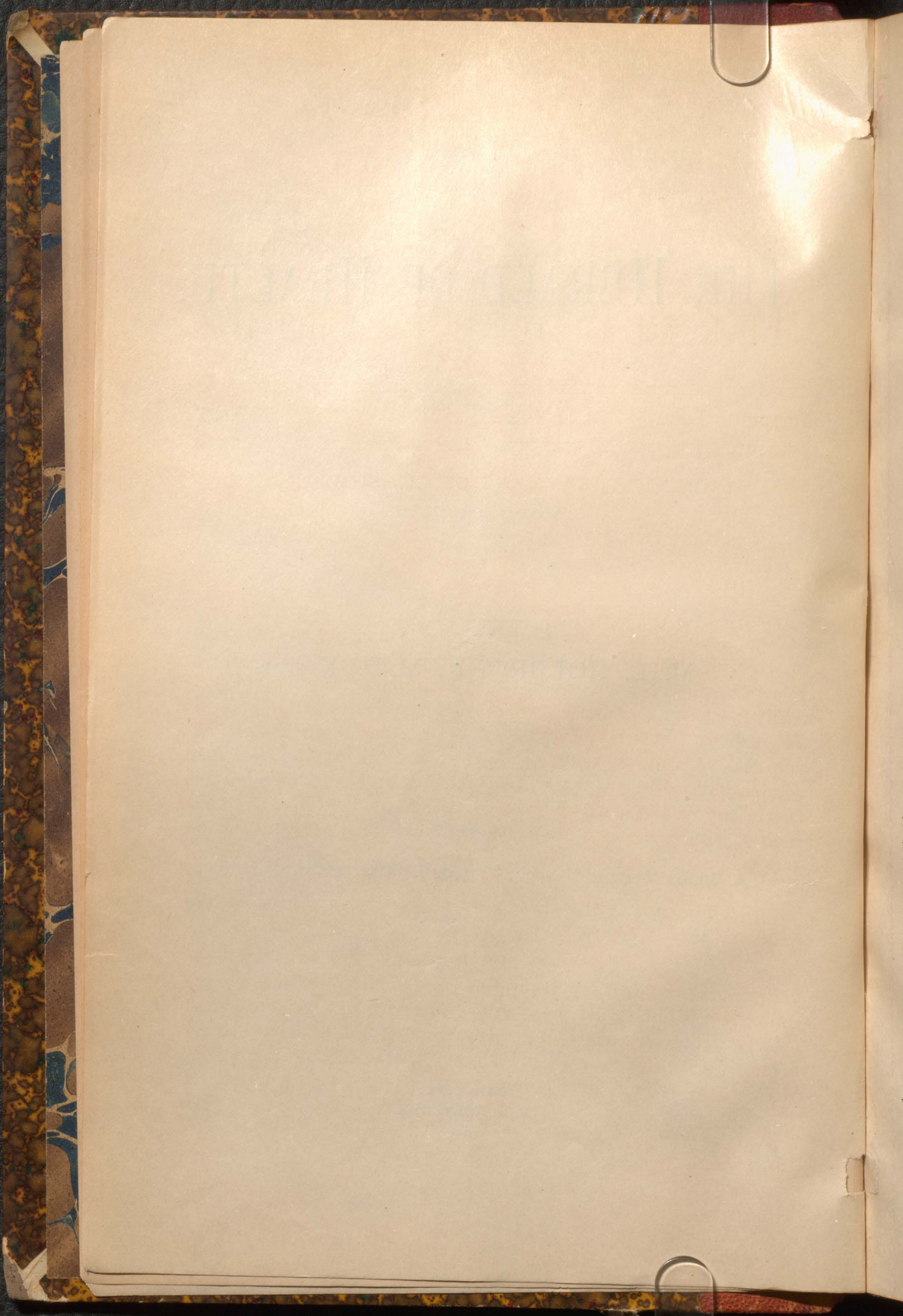
VOLUME XLI.

M. L. HOLBROOK, M. D., EDITOR.

OUR MOTTO:

A HIGHER TYPE OF MANHOOD—PHYSICAL, INTELLECTUAL AND MORAL.

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1891



THE
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Forty-first Year.

JANUARY, 1891.

No. 1.

HYGIENIC TREATMENT OF CONSUMPTION.

No. 6.

BY M. L. HOLBROOK, M. D.

PHYSICAL CULTURE.

As a means of preventing consumption, I must not omit to speak of scientific physical culture. Heretofore I have confined myself to considering such modes of bodily training as are common and easily used by any person with good sense and willingness to adopt them, but scientific physical culture has some striking advantages over other methods. The ideal man and the ideal woman physically are rarely real persons; now and then one so nearly approaches perfection as to be set up as a model. In a rude way our ideal man is the average man made after taking the anthropometric measurements of a good many thousand normal persons of a certain age. He has such a height, such a length of limb, and measurement around chest, waist, arms, legs, etc., a pulse of

A CERTAIN NUMBER OF BEATS

per minute, and so many inspirations and expirations in the same time. He is practically the average man, who is in fact no real person. It is very doubtful if this method of finding out what development an ideal man should have is the best that can be devised. The average man or woman may not be the best models of

physical development, but far below it, besides we should need studies for each temperament and each race. The measurements of a man with the motive temperament predominating should not be mixed with one of the nervous or vital, and so on, for this would vitiate the results and render them less useful. Still, some good comes from anthropometric measurements, and we have a standard, such as it is, a unit from which to measure all persons. With it we take one whose physical development is defective and find out what his or her defects are. When we know them we have at once in our hands the basis of a knowledge for correcting them. In one disposed to consumption the measurements will be under the average and very far below one with superior measurements. He will be smaller around the chest and waist. The arms and limbs will be of less circumference. There will be a tendency to flatness over the breast, and the back of the neck will be thin instead of round. The digestive organs will be deficient, the muscles rather flabby and the *tone* low.

WITH THESE POINTS IN VIEW

what remedy has scientific physical culture to offer? It pursues or should pursue a purely educational course. It should go to no extremes, but always keep the training within the capacity of the person trained. Nothing should be overdone. The first point often to consider is the food, which should always be of the most suitable kind, with rather more fatty and hydrocarbonaceous matter than would otherwise be necessary. The health and strength of the digestive organs should be promoted. Often it will be well to devote the first part of the training to them. Massage, and especially percussion over the stomach, abdomen, liver, sides and back, so as to call, so to speak, the blood to these parts, will be very valuable. Thus digestion will be improved, more food digested and assimilated and the blood become richer and better.

In addition to this, every effort should be made to enlarge and strengthen these parts of the body which are below the standard for the ideal man. It may not be possible to bring them up to this standard, nor will this be necessary. If we can bring them to a degree of strength which will enable them to resist disease,

we may be satisfied. The chest should be developed first. Our modern modes of physical culture are such that any muscle or set of muscles and other organs may be brought up to a very considerable degree of perfection. The chest may often be enlarged several inches in a comparatively short time by respiratory and chest gymnastics. It is not wise however to try to build up great muscles over this part, but rather to

ENLARGE THE LUNGS AND PROMOTE FLEXIBILITY

and ease of movement of all the parts. The enormous increase of muscular development is a fatal error with some who engage in physical culture. Plato understood this and advised against it. The Grecian athletes, according to him, were short lived and unhealthy. His idea of physical culture was a training to produce harmony of development and moderate strength with ease and grace of movement. Modern teachers may profit by his wisdom. After having done for the chest what seems sufficient, any other part of the body may be brought as near as can be to a normal standard, or the work may proceed at the same time until all has been done that can be done. All this can be accomplished better in early life than later, but even after maturity it is not too late to do much, especially in improving the digestive organs and the chest. This physical culture, when rightly done, reacts on the nervous centres and promotes their health. If it did not, little good would result, for they often are the source of imperfect bodily development and feeble respiration and circulation.

The work of scientific physical culture is best done in special schools for this purpose. If one wishes to become a musician, he goes to a musical instructor for training. He undergoes the most severe exercise of voice and all the organs which produce it in song. Or if he is to become a violinist or pianist, the special training required by teachers on these instruments. By this means the musical talent which lay in embryo in the nature of the pupil is brought out, strengthened, perfected, so should it be in perfecting a physical organism. The person should go to one who has the best knowledge of how to perfect it, and take the training required.

THE MUSICIAN KEEPS UP HIS PRACTICE

after the teacher has imparted to him all the instruction necessary; so must the one who has received physical training. The time required daily is slight, and the benefits incalculable.

NOTE.—The great interest shown by the whole world at this time in Prof. Koch's discovery for the cure of consumption, may for a time draw us away from the hygienic treatment of this disease, but this cannot be long. Whether Prof. Koch has anything more than a nine days wonder or not, I will not here pretend to say, but the Professor is himself a hygienist, and has already stated that in hygiene we have the only true method of combating consumption, and that his discovery will be of little avail if hygiene is not brought to our aid in connection with other remedies.

A PLAN TO ABOLISH THE PRESENT CLASS OF DOCTORS.

A NEW YORK physician, whose name the reporter who took down his remarks fails to disclose (more's the pity), gave utterance the other day to two remarkable experiences. The first was: "Sickness is a crime, and should be punished by law," and the second, "The present class of doctors are all humbugs and should be exterminated from the face of the earth. Their lives are made up of fabrications and deceit, and they are the direct cause of nine-tenths of the sickness in the world." The doctor continued: "No physician, however far advanced in his profession he may be, can conscientiously say that he is infallibly familiar with the cases he is called on to treat. They look wise, and give their confiding patients to understand that they know just what the trouble is, and write knowing prescriptions, but, just the same, they are making liars of themselves. My opinion is, as much as I love my profession, that the sooner the present class of doctors is wiped out the better. I believe that

THE GOVERNMENT SHOULD HAVE COMPLETE CHARGE

of caring for the sick throughout the country and that the most miserable pauper should have the same treatment and show for his life that the millionaire has. I believe that if such was the case

sickness could be reduced to such a minimum that the Legislature could conscientiously construct a law making it a crime to be sick. Epidemics spring from carelessness, and all sicknesses result from abuses of the human system and neglect.

“MY SUGGESTION WOULD BE

to have the Government select certain physicians and educate them up to the very best standard possible to be obtained in medicine. Let expense be a secondary consideration. If it costs a million dollars to reach this end, let it be spent. After these physicians have attained their education, cause a medical department to be established on the same general plan as the Police Department is run. Have a chief of physicians; inspector of physicians, captains of physicians, sergeants and patrolmen, the same as the Police Department has. Let this city, for instance, be divided into precincts and sub-precincts, and let the patrolmen visit each family every day, and where sickness is found let reports be made and the proper medical remedies applied.

“LET EVERY PERSON,

rich or poor, receive the same proper treatment. Let the salaries of the officers be of such a standard, and the rules governing the department be so strict that it would be folly for a subordinate to attempt discrimination between the rich and poor. Make it a crime punishable by imprisonment for a person to attempt to employ a physician not appointed in the department. Have it so systematized that a person could not be taken down sick without the fact becoming immediately known to the department and the disease checked in its incipiency.

“FOR INSTANCE, SUPPOSE A PATROLMAN

should discover a peculiar disease in a tenement house district. Let him administer to the immediate relief of the patient and report the case to his captain. The latter reports it to the chief and the chief sends one of his staff of expert physicians to diagnose the case and then apply the proper remedies. There is no reason why people should be sick, and when it is discovered that the same persons have become sick several times with the same disease through

their own carelessness, they should be arrested and imprisoned as criminals.

CRIMINAL MALPRACTICE.

“As strange and preposterous as it may seem, according to years of observation and careful calculation and comparison with other countries, there are in the United States more than a million cases of criminal malpractice on women annually under the present system of doctoring. This is one of the principal evils that would be checked should the Government establish such a department as I have described. It would be only a comparatively short time when we would have the healthiest city in the world, and it would ultimately result in establishing a condition of affairs where sickness, except in a natural way, would be entirely eliminated.

HIGH MORTALITY RATES.

“Why, just take the October report of the mortality in this State. It shows a death rate of 262 persons a day, or an annual rate of sixteen persons to every 1,000 inhabitants. Nearly one-third of these deaths occurred under the age of five years from diseases that with proper and immediate attention could have been cured. Diphtheria, scarlet fever, whooping cough, measles, diarrhœal diseases and typhoid fever were the principal causes of death. Under the system I have described patrolmen could have discovered these cases in time to have checked the diseases and saved the persons' lives. It is the only way by which epidemics of infectious disease can be successfully eradicated, and the sooner the Government sees the necessity of establishing such a department and overthrowing the present system of doctoring the sick the better it will be for the nation.”

This scheme certainly is novel and original, but contains many objectionable features which are apparent upon the surface. The proposition to get rid of the present race of doctors, however, deserves consideration. Once abolish the charlatans who now curtail and ruin the health of the majority of our population and the hygienic millenium will not be far off. But alas! so weak is human nature and so committed to the superstitions and humbuggery of what is called medical science, we fear that day is not to dawn within the experience of the youngest child now living, should he reach even the years of old Methuselah.

A GOOD COOK IS A PRACTICAL PHILANTHROPIST.

FROM AN ESSAY BY MISS ALICE CASSIN, OF THE N. Y. STATE NORMAL SCHOOL.

PHILANTHROPY! A philanthropist! What high sounding words! They call up visions of men and women who, in their endeavors to benefit mankind, forget all selfish interests and sacrifice their own ease, pleasures and popularity for the benefit of suffering humanity. We seem to see before us such men as Oglethorpe, who founded a colony in America as an asylum for debtors, such as Romilly and Bentham, who effected a reform in the criminal code of England, under which a theft above the value of one dollar and twenty-five cents sent the thief to the gallows; such as John Howard and Elizabeth Fry, who purified the jails and prisons of England of abuses which had made them not only dens of suffering and disease, but schools of crime as well; such as Wilberforce and Clarkson, who by earnest labor for over half a century secured in 1833 the passage of a bill in Parliament whereby all negro slaves in British colonies, numbering eight hundred thousand, were set free.

MANY, INDEED, HAVE THUS EARNED

the title of philanthropist. But to us this idea of philanthropy as that of men laboring for the reform of great public abuses seems erroneous, for while we give all honor to men for their rigorous and successful battles with evil, we are not willing to concede that they are the only legitimate workers in the great field of philanthropy. Where, we would ask, is the one place in the world that renders life tolerable or intolerable? Why the home, of course; and say what we please of the happiness derived from books, music, paintings and all works of art, we all know that the great factor in rendering home happy is the art of good cookery. It has a physical, mental and moral influence that cannot be equalled by anything else.

WITHOUT GOOD, PALATABLE, PROPERLY COOKED FOOD

it is impossible for the human body to attain its normal develop-

ment. The pallid cheeks and stunted growth of hundreds of infants in our cities bear testimony to the truth of this statement. By these sickly children, no energy can be exerted, and the State naturally looks forward to the time when these same children shall become either paupers or criminals, and it enacts laws to meet these exigencies. It would be far more sensible and humane to enact laws providing good food for helpless childhood in order to give it a fair start in life. . But not among the lower class of society alone do we see the effect of poor food, many people in comfortable circumstances financially are rendered miserable, unhealthy, and unhappy because of the lack of skill in the woman of the household to prepare suitable food. It is said, "Music hath charms to soothe the savage breast," but it would require a good deal of music of an exceedingly fine character to soothe the savage breast of a family who had just dined on raw potatoes, burnt meat, sour bread, heavy cake and flabby pie. The physical part of man's nature has much to do with his happiness, and she who can prepare food capable of satisfying and pleasing the physical natures of her household, thereby rendering them happy, is a philanthropist.

CAN A HEALTHY MIND EXIST

without a healthy body? Certainly not, so intimate a relation exists between the mind and body that no mental work of value can be accomplished while the body is in discomfort, whereas, when the body is at peace, the mind is at liberty to think of good and great things, to write books and lectures, to encourage, help and build up humanity, to invent articles of general value and create works of art having an elevating tendency on all mankind. A good cook, who can thus release the mind from petty discomforts and physical annoyances, is a philanthropist.

If good cookery is such an important element in the physical and mental realm, of how much more value is it in the moral. Many a woman has been miserable over what she thought was the sickness of her husband, when in reality it was the sourness of her bread. Many a boy has been whipped in school not as much on account of inherent viciousness as the ill temper produced by his mother's sour pancakes in his stomach. There is a soothing influ-

ence in a well-spread table to calm the discordant elements in human nature compared to which the influence of music sinks into insignificance. Many a man has become ill-natured and profane because his physical nature was rendered miserable and his moral nature

CHAOTIC BY REASON OF POOR FOOD.

The preparation of food and the development of the moral nature are the two principal differences between the civilized man and the savage. As Owen Meredith expresses it, "We may love poetry, music and art, we may live without conscience, we may live without heart, we may live without friends, we may live without books, but civilized man cannot live without cooks."

Not every woman can be an Elizabeth Fry to render prisoners' lives happier, nor go upon the battlefield to minister to the needs of dying soldiers, like Florence Nightingale, nor write books creating public sentiment against wrong as Harriet Beecher Stowe, nor organize a great temperance movement like Francis Willard. But every woman can learn, by care, patience, and perseverance, to cook food in such a manner that her husband may be happy, healthy, intelligent, and moral; and though she may be unappreciated, we will never regard her as least among earth's philanthropists.

COUNT MATTEI'S CANCER CURES.

THERE has been a great deal of discussion on the other side of the Atlantic concerning the alleged cancer cures by Count Mattei's remedies. Here, for example, is a letter culled from the columns of a London periodical, sounding the praise of the Mattei treatment:

"To Leopold Surville, Esq., Exponent of the Mattei System.—Dear Sir—I should like for the encouragement of others to give an account of the benefit I have received by taking the Mattei remedies. For years I had suffered from ill health, and large growths under the arms, and on the top of the left breast. I consulted the leading doctors of the town, and was told that the lumps would be-

come as large as a half-quartern loaf, and become large sores; nothing could be done for me. A lady, on October 18th, 1888, told me of the cure of a servant by Count Mattei's remedies, and urged me to try them. Becoming worse, in February, 1889, I decided to go to Professor Suville, 37 Larkhallrise, Clapham. He gave me 'canceroso' and 'venereo' and 'angiotico,' to take and use in compresses. I persevered until June, when I was confined of my eighth child, and my doctor said I had never had so good a time. As soon as I could I again saw the Professor, and the treatment had a grand result. My health improved, some of the growths breaking up, and others diminishing gradually; no pain; and freedom to use my arms; strength gradually increasing. I hope that this result will decide those who hesitate to try the Mattei remedies.—Yours, very gratefully and respectfully,

25 Mayor-Walk, Peterborough.

MARY HANNAM."

ON THE OTHER HAND,

the subjoined statement, condensed from the columns of the *St. James's Gazette*, of November 4th: "It may be mentioned in this connection that Mr. Stead has started for Italy in order to interview the medical Count. In the meantime, Dr. Herbert Snow encloses an analyst's report upon three of the Mattei "electricities." The analyst says: "On Oct. 2 I received from you (Dr. Snow) three small bottles bearing the Government patent medicine stamp, each securely sealed with a wax, unbroken, seal of a castle on a rock. I have now carefully examined these chemically, physically, and microscopically, and I find as follows: They were labelled 'Elettricità Bianca,' 'Elettricità Verde,' and 'Elettricità Rossa.'" The analyst then proceeds substantially as follows: To find if they possessed any special electrical properties they were placed singly in thin glass tubes, which tubes were suspended by silk filaments. Under such circumstances an electrical body would point one end to the north and the other end to the south. Not one of these came to rest in such a position, neither were any of them attracted by a magnet as an electrical body would be. Hence they certainly are not electrical. Again, to delicate test-paper they were perfectly neutral. Vegetable extracts are usually

either alkaline or acid. Even if neutral when fresh, they speedily change. They

HAD THE FOLLOWING CHARACTERS:

	Electricita Bianca.	Electricita Verde.	Electricita Rossa.
Color	None.	None.	None.
Odor	None.	None.	None.
Taste	None.	None.	None.
Polarity	None.	None.	None.
Specific gravity (distilled water = 1).....	1.0006	1.0002	1.0002
Solid matter in 100 parts	0.01	0.01	0.01
Metals	None.	None.	None.
Alkaloids	None.	None.	None.

The analyst then sums up the conclusion of the whole matter: "The microscope showed an absence of any floating particles or sediments such as are usually present in vegetable extracts. There is but one substance which possesses all the above qualities—that is, water. None of these fluids differ at all from water in any of their properties."

ALF. W. STOKES, F. C. S., F. I. C.,
Public Analyst.

ONE MORE REMEDY FOR OBESITY.—Never eat more than one dish at a meal, no matter what that dish may be, and a person may consume as much as the stomach may bear, and satisfy the appetite without the least reserve. Nevertheless, nothing but the one dish should be taken; no condiments, no soups, nor supplementary desserts should be allowed. This system was recommended by the author of the note to a lady who was slightly obese; and who put it into practice with the best results. The lady observed that she suffered no inconvenience whatever from this diet, and the result obtained by several others may be well understood, as she found by her own experience that the partaking of only one dish, whether it be meat, fish or vegetables, brought on a sense of satiety much sooner than if she had partaken of a variety of dishes, whence the effect of a relative abstinence.—*Pharmaceutical Era.*

EDITOR'S STUDY.

FALSE SENSATIONS OF COLD.—The "Transactions of the Association of the American Physicians" contains a report by Dr. S. Weir Mitchell, of a number of curious cases of false sensations of cold. In some instances the feeling of cold was accompanied by an actual rise of temperature in the part affected. This peculiar sensation of cold in one case followed an injury, but in others the causation was obscure. One rather remarkable case was that of a lawyer, 57 years of age. During the last few years he has been annoyed by subjective sensations of cold, which are increased by mental application. To relieve these sensations he wears three suits of the heaviest kind of woolen underwear, three pairs of the heaviest woolen socks, felt boots of the heaviest material over his ordinary boots and shoes, and a flannel bandage around his body. At night he wears two of the above mentioned suits, a flannel bandage, woolen socks, and sleeps under five woolen blankets on a feather mattress, with a hair one under it. He always keeps the night temperature of his room at 80, and after a hard day at court from 90 to 95. The sensation of cold is positively painful though his surface temperature is normal.

CHANGES IN COLOR OF HAIR.—It has been doubted by good authority (Hebra and Kaposi) if the hair, after being once developed, can change except by a very gradual process. This doubt is based upon the theory that the hair has no vascular or nerve connection with the general system, and must therefore be independent of nervous or systemic influence. This position is, however, not tenable, writes a correspondent of *Science*. The clinical evidence is positive that the hair does change color under systemic influences, sometimes gradually and sometimes suddenly. Cases on record are sufficient to prove beyond all reasonable doubt that the hair does suddenly change color under certain circumstances, and that the change takes place in existing hairs.

CHILLS LURKING IN OVERCOATS.—At a recent meeting of the New York County Medical Society several physicians became involved in a discussion on overcoats. The substance of their ver-

dict, in which all agreed, was that the use of thick and heavy overcoats is indirectly accountable for the very chills that they are intended to prevent. This fact should be borne constantly in mind by the man of sedentary habits. He emerges from a warm breakfast room clad in his ordinary Winter garments, with perhaps thick woolen underwear, and a heavy ulster on top. After walking a few blocks he finds that the sense of comfortable warmth with which he started is more than maintained. He gets warmer. Arrived at his office, he throws off his overcoat, though the air of the room may be nearly as cold as that outside, not to mention the innumerable draughts. During the day he runs out to luncheon or to a neighboring office without his overcoat. The result is that, somehow, between morning and night he becomes chilled.

No doubt he would run a great risk if, lightly clad, he were to face the rigor of a wintry day, but in this case exercise and habit might do much to develop the power of endurance, and there would at all events be less danger of sudden cold acting upon a freely-perspiring surface. Woolen underclothing, it was argued, represents a state of healthy comfort intermediate between these extremes, and more resistant to chill than either. Said one of the party, "I'd rather see the ordinary business man, especially if young, clad warmly next the skin, and in fairly robust condition wear either a very light topcoat or none at all."

ARE DRAUGHTS DANGEROUS?—Now is the time of year, says the London *Lancet*, when windows are closed up to keep out draughts. Just the contrary should be adopted, it says. Where the body is not overheated the draught caused by the ordinary incoming of air will do infinitely less harm than the impure air caused by closed windows. The way to enjoy pure air in cold weather is to turn on the heat when the room gets cold, not shut up the windows. Heat was invented for use. If the room becomes too warm don't turn off the heat, but open the windows. By that means a person who knows anything about ventilation can have an equable, Summer-like atmosphere about him all Winter long. The necessity of open windows is doubly apparent where tobacco smoke is indulged in, as the smoke is dangerous to the breathing apparatus and makes it liable to pulmonic troubles.

REMARKS ON SLEEP, by a Sound Sleeper.—“A man may sleep soundly in a sawmill, and it is a fact equally well known that one may be awakened from the deepest slumber by the outcry of an infant. It does not appear that stillness is essential to promote sleep; what does seem to be necessary is the surrounding condition, whether it be of silence or of sound, shall continue substantially unbroken. A man might not sleep well in a boiler shop, but the reason for that would be not the amount of noise made there, but its intermittent irregularity. If it were possible for a man to sleep in two or more boiler shops at once it would probably be all right, for then there would be noise enough to make the clangor practically continuous. Of sawmills, those operated with circular saws are the most conducive to sleep; there is soothing slumber in the song of the circular saw. To a tired man sleep comes easily in a planing mill; the cadenced hum of the whirring knives is restful. There are men who may sleep delightfully lulled by rustling leaves, and yet be awakened by the deeper quiet when the summer breezes cease to blow, and there are others who are always restless sleepers in the quiet country, and who hasten back to the soothing accustomed noises of the city.”—*N. Y. Sun.*

DISEASE GERMS IN BOILED WATER.—We are accustomed to be told that the most impure water will be rendered pure by boiling, and that in this we have an absolute safeguard against the danger of water containing disease germs. Now while it is true that boiling will kill the germs of disease, yet the fact has been brought to our notice, says *Annals of Hygiene*, by so high an authority as Dr. Charles M. Cresson, that while boiling kills the germs of a particular disease, it yet, in reality, renders the water more impure than it was before, because by the very death of these germs dead organic matter is allowed to remain in the water, which is polluted by putrefaction. Hence, while boiling is a most excellent precaution against the occurrence of typhoid fever or similar diseases, when we have occasion to think that the germs of these diseases exist in the water that we drink, yet we must remember that this boiling does not purify the water; it simply removes from it the specific power to produce a specific disease.

THE SKIN A MEDIUM OF SIGHT.—A Russian physician is credited with the invention of an instrument by which persons totally blind are able to perceive light through the sense of touch. The instrument consists of an apparatus which converts light rays into a thermo-electric current, which is perceived by the nerves of the skin covering the forehead, when the instrument is placed upon this part of the body. *Good Health* says that the sensations produced by the instrument are thus described by the inventor: "The presence of a light-giving or of an illuminated object is manifested in the perceptive field as a sensation of warmth. A light object on a dark background is perceived as a peripherally warm sensation, with a sensationless center. The degree of the sensation of warmth increases with the approach of the illuminating object, and vice versa. A movement of the feeling of warmth toward the right shows that the light has moved to the left, and vice versa. If the warm area moves downward the illuminating object is moving upward, and vice versa."

OF ALL FOOD THAT RAPIDLY BEGINS TO DECOMPOSE mackerel is perhaps one of the most common. Being forth cheap and usually plentiful when in season, it is largely consumed. Putrefaction sets in very rapidly, especially about the gills of this fish, sometimes almost as soon as it is taken out of the water. The poisonous principle that has been extracted from mackerel is called hydrocollidine, a very violent poison, so powerful that the seven-thousandth part of a grain will cause death in a bird. From beef and other flesh meat when fad, a poisonous body known as vendine has been extracted. Bullock's sweet bread when decomposed yields a principle named collidine. Putrescine is another poison substance that has been extracted from mean flesh and fish when putrid. Mussels are a common article of diet, largely eaten by some classes, and they frequently occasion fatal cases of poisoning. This is attributed to a principle which has been extracted from the mussel called mytilotoxine, also a powerful poison, about a grain and a half being a fatal dose.

CHEESE THAT HAS BECOME ROTTEN often causes serious illness, doubtless due to the formation of trimethy lanuire or tyrotoxicon, which are its putrefactive products. Milk, that universal diet of daily use, may also produce in hot weather the same poison. Its symptoms are nausea, vomiting and fever, followed by great prostration, and it often causes diarrhœa among infants. Sausages, another form of common food, often give rise to hurtful effects due to animal poison. Being frequently composed of imperfectly cooked and old pork and beef in which putrefaction has already begun, they sometimes produce very alarming effects after eating.

OUR RULES FOR GOOD HEALTH.

1. Be regular with you habits.
2. If possible go to bed at the same hour every night.
3. Rise in the morning soon after you are awake.
4. A sponge bath of cold or tepid water should be followed by friction with towel or hand.
5. Eat plain food.
6. Begin your morning meal with fruit.
7. Don't go to work immediately after eating.
8. Be moderate in the use of liquids at all seasons.
9. It is safer to filter and boil drinking water.
10. Exercise in open air whenever the weather permits.
11. In malarious districts do your walking in the middle of the day.
12. Keep the feet comfortable and well protected.
13. Wear woolen clothing the year round.
14. See that your sleeping rooms and living rooms are well ventilated, and that sewer gas does not enter them.
15. Brush your teeth at least twice a day, night and morning.
16. Don't worry, it interferes with the healthful action of the stomach.
17. You must have interesting occupation in vigorous old age. Continue to keep the brain active. Rest means rust.

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY MRS. F. C. PRESSLER.)

THE GOOD OLD WARMING PAN.—There is an old-time institution that ought to be revived, and that is the warming pan. One authority says that, according to medical protest against damp or cold beds, warming pans should come into fashion again. One medical writer says: "Not only the guest but the family often suffer the penalty of sleeping in cold rooms and chilling their bodies at a time when they need all their bodily heat by getting between cold sheets. Even in warm summer weather a cold, damp bed will get in its deadly work. It is a needless peril and the neglect to provide dry rooms and beds has in it the elements of murder and suicide." People crawl into the chilly sheets and spend half an hour in "getting the bed warm," when the warming pan would put them into a cozy bed that would give them warmth instead of taking it from them. We look to see the warming pan become a fad.—*Cincinnati Commercial Gazette.*

SPONGING OUT A HEADACHE.—In case of the ordinary nervous headache from which women suffer so much, says an authority, remove the dress waist, knot the hair high up on the head, out of the way, and, while leaning over a basin, place a sponge soaked in hot water as hot as can be borne on the back of the neck. Repeat this many times, also applying the sponge behind the ears, and if the assertion of the writer is not a mistaken one, in many cases the strained muscles and nerves that have caused so much misery will be felt to relax and smooth themselves out deliciously, and very frequently the pain promptly vanishes in consequence. Every woman knows the aching face and neck generally brought home from a hard day's shopping or from a long round of calls and afternoon teas. She regards with intense dissatisfaction the heavy lines drawn around her eyes and mouth by the long strain on the facial muscles, and when she must carry that worn countenance to some dinner party or evening's amusement it robs her of all the pleasure to be had in it. Cosmetics are not the cure, nor bromides or the many nerve sedatives to be had at the drug shop. Here, again,

the sponge and hot water is advised by the writer quoted, bathing the face in water as hot as it can possibly be borne; apply the sponge over and over again to the temples, throat and behind the ears, where most of the nerves and muscles of the head center, and then bathe the face in water running cold from the faucet. Color and smoothness of outline come back to the face, an astonishing freshness and comfort is the result, and if a nap of ten minutes can follow every trace of fatigue will vanish.

DON'T WASH THE HAIR.—"Don't wash your hair." This is advice given by a woman who has been at the head of a leading hair-dressing establishment for the last twelve years. She says further: "I believe the average young woman drowns the life of her hair by frequent washing in hot and cold water. We send out about twenty young women who dress hair by the season, contracting for the entire family. They plan to give each head a combing twice a week, and, by special arrangement, make house to house visits daily. Not a drop of water is put on the hair, and every head is kept in a clean and healthy condition. We pin our faith to a good brush, and prefer a short bristled narrow brush, backed with olive or palm wood. We use the brush not only on the hair, but on the scalp as well. A maid has to be taught how to dress and care for the hair by object lessons. The instruction is part of my duty. In teaching one novice I operate on the other. The first thing to do when the hair is unpinned is to loosen it by lightly tossing it about. The operation need not tangle it, and as the tresses are being aired they fall into natural lengths. Instead of beginning at the scalp, the first combing should start at the end of the hair. In other words, comb upward to avoid tangling, breaking and tearing the hair out. This racking of the hair will remove the dust. After this the scalp should be brushed thoroughly. By this I mean that a full hour should be spent, first brushing the hair and then the head.—*New York Star.*

HER FORTIETH BIRTHDAY THOUGHT—"To-morrow," laughed a bright faced matron, "will be my fortieth birthday, and I shall have to alter a long established line of comparison. For 20 years

and more I have used the phrase 'as if I was 40,' to indicate a condition far removed from my real one. Now, alas, the dreaded line is almost past and I must adjust myself to my new future. It will seem venerable indeed to put 60 as a possible objection point, but probably if I live to reach 60, even that limit will not seem hopelessly old. It is curious how one's ideas of age change. When I was in my latter teens I went home with a school friend one day and met her sister, a fair-haired, pretty young woman, whom I admired immensely. When we went up stairs to her room, however, on the wall hung, framed, her graduating diploma, which betrayed by its date that her age was 23. I often recall now with amusement how the girl fell in my estimation at the discovery. Gay, girlish, positively juvenile at 23! What a preposterous idea, I thought, from my intolerance of 17 years. But, ha! looking back from almost 40, 23 has a very different aspect."

DRINK MILK SLOWLY.—Some complain that they cannot drink milk without being "distressed by it." The most common reason why milk is not well borne is due to the fact that people drink it too quickly. If a glass of it is swallowed hastily, it enters into the stomach and then forms in one solid, curdled mass, difficult of digestion. If, on the other hand, the same quantity is sipped, and three minutes at least are occupied in drinking it, then, onr eaching the stomach, it is so divided that when coagulated, as it must be by the gastric juice, while digestion is going on, instead of being in one hard, condensed mass, upon the outside of which only the digestive fluids can act, it is more in the form of a sponge, and in and out of the entire bulk the gastric juice can play freely and perform its functions.

HOT WATER CURE FOR NEURALGIA.—A towel folded several times, and dipped in hot water, and quickly wrung, and applied over the toothache or neuralgia, will generally afford prompt relief. This treatment in colic works like magic. There is nothing that so promptly cuts short a congestion of the lungs, sore throat, or rheumatism as hot water, when applied promptly and thoroughly.

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESLER.)

MUFFLING THE THROAT.—This is the time of year when school children begin to tie silk handkerchiefs about the throat. The *Ledger* reminds people that this is not wise, if one can possibly do without the muffling, for if once begun it must be carried through the entire season, or colds will result. Then, too, covering the throat is apt to make it sensitive. The muscles of the throat can be strengthened by reasonable exposure. But singers and speakers should always cover the throat after singing or speaking, when going into a cool room, or into the open air. A light bit of lace, or any open-work covering for the neck that will admit of ventilation, is the best protection.

A **SICK ROOM SCREEN** should be made very light so that it can be removed easily. A clothes-horse will answer for the frame. Buy a couple of tubes of darkest green, thin with linseed oil and a little turpentine, and with a flat bristle-brush paint the light wood frame. Dark green silesia, tacked on one side firmly to the wooden frame, will shut out light. On the other side you can pin up one picture at a time. If there is color in that one picture, so much the better. The nearer you make your sick-room screen like the screen an artist uses in his studio, the better for the recovery of the sick child. The use of this screen is to rest and protect the eyes. The use of the picture is to amuse the sick child.

A **SAFETY BOX FOR THE BABY** is a wooden box from three to four feet square and perhaps eighteen inches or two feet high, set on castors. Over the edge is fitted a padded roll, the floor of the box is slightly padded, and the inner sides are lined with any strong wool cloth, which is laid in plaits to secure a hold to the little occupant tumbling around. The outside of the box may be ornamented in the new poker-work designs or covered with gay Japanese paper. In this comfortable and safe pen Master Baby will stand a deal of knocking about.

TO EXAMINE CHILDREN'S THROATS FOR DIPHTHERIA.—If diphtheric patches are in sight, it is scarcely possible to fail to recognize them and their significance. Sometimes there are two or more patches to the throat, and sometimes there is but one. Their location is variable, but more often than otherwise they are very near to or on the tonsils. The patches are aptly said to have the appearance of pieces of dirty white kid. There are quite common affections of the throat which present signs somewhat resembling diphtheria, but the resemblance is not close. A nice discrimination on the part of parents and teachers is not, however, needed. They simply must bear in mind that any inflammation of the throat as shown by redness is a sufficient reason for quarantining a child. Strangely enough, but few parents appear to be able to examine the throats of their children; at any rate, they rarely do so, whereas it should be a frequent custom with them, and invariably when they are at all ailing, whatever be the cause. The examination is easy. Stand the child so that it will face a bright light; with the left hand, the palm upward, grasp the lower jaw, the thumb being on one side and the fingers on the other, and gently depress the base of the tongue by means of the handle of a tablespoon held in the right hand. After a little practice one can become expert in this simple operation. Were physicians or teachers to examine the throats of school children in a body, no spoon or other tongue depressor could be used unless it was thoroughly disinfected after each examination. But the children could be taught to depress their tongues with their fingers, and by this means as good a view of the throat could be obtained as by any other. Parents will do well to educate their little ones up to this.

UNCONSCIOUS EDUCATION OF CHILDHOOD.—From a study of the time occupied in mental acts by children old enough to understand what is asked of them the gradual development of human faculty can be traced, as well as the unconscious education passed through in childhood. Ordinary observation shows that children are slow in responding to a stimulus. Actual measurements have been taken by having children press upon a tube as soon as they heard a sound. The average adult time for this reaction is .14 of a

second. Children from four to seven years old require over half a second to do the same thing. The times, too, are irregular, from a minimum of one-fifth of a second to a maximum of a second or more, an indicating irregularity in the power to fix the attention upon so artificial a task. When the time was measured, the curve of contraction was also written. This in the adult is a quick, sudden stroke, occupying about .34 of a second. In three of the children the movement occupied over half again as much time, and in one child was as long as two seconds. This suggested a test of the maximum number of pressures a child and an adult make in a given time. The adult makes eighteen (in an extreme case twenty-seven) in four seconds, while the children averaged only nine pressures in the same time.

HOW TO SAVE BOYS.—Women who have sons to rear, and dread the demoralizing influences of bad associates, ought to understand the nature of young manhood. It is excessively restless. It is disturbed by vain ambition, by thirst for action, by longings for excitements, by irrepressible desires to touch life in manifold ways. If you, mothers, rear your sons so that your homes are associated with the repression of natural instincts, you will be sure to throw them in the society that in any measure can supply the end of their hearts. They go to the public house at first for the animated and hilarious companionship they find there, which they find does so much to repress the disturbing restlessness in their breasts. See to it, then, that your homes compete with public places in their attractiveness. Open your blinds by day and light bright fires by night. Illumine your rooms. Hang pictures upon the walls. Put books and newspapers upon your tables. Have music and entertaining games. Banish demons of dullness and apathy that have so long ruled in your household, and bring in mirth and good cheer. Invent occupations for your sons. Stimulate their ambitions in worthy directions. While you make home their delight, fill them with higher purposes than mere pleasure. Whether they shall pass happy boyhood and enter upon manhood with refined tastes and noble ambitions depends on you.

LOVING THEM.—A baby carriage stood in front of a small shop. Wherein slept a pretty, dimpled baby. A drowsy puppy lay on the pillow, its black nose close to the baby's cheek. By the carriage stood a ragged little waif, dirty, with scarcely enough clothes for decency. She stroked in turn the baby and the puppy. A lady passing by noticed the strange picture—the beautiful baby, the cunning little dog, the ragged child. The baby's mother was in the shop. "Are you caring for these?" said the lady to the waif. A wonderful smile lit up the dirty little face. "No, please, ma'am, I'm only loving them."—*Exchange.*

THE PERFECT HOME.—The most perfect home I ever saw was a little house in the sweet incense of whose fires went no costly things. A thousand dollars served as a year's living for father, mother and three children. But the mother was the creator of a home; her relations with the children were the most beautiful I have ever seen. Every inmate of the house involuntarily looked into her face for the keynote of the day, and it always rang clear. From the rosebud or clover leaf, which, in spite of her hard house work, she always found time to put beside our plates at breakfast, down to the story she had in her hand to read in the evening, there was no intermission of her influence. She has always been and will always be my ideal of a mother, wife and home maker. If to her quick brain, loving heart and exquisite taste had been added the appliance of wealth and enlargements of wide culture, her's would have been absolutely the ideal home. As it is, it was the best I have ever seen.—*Helen Hunt Jackson.*

PUBLISHERS' DEPARTMENT.

THE QUESTION OF PURITY IN FOOD is a matter of the greatest importance, and deserves most careful and constant consideration; yet so ingenious are the methods nowadays adopted to adulterate, and the processes employed to cheapen manufacture, that it is often very difficult to determine the merits of any particular article of food. With W. Baker & Co.'s Breakfast Cocoa, however, no such difficulty arises, for it is produced from the finest cocoa seeds

only, exclusively by mechanical processes, and as no chemicals whatever are used in its preparation, all possibility of impurity is avoided. The result is that W. Baker & Co.'s Breakfast Cocoa is not excelled in solubility, and is not approached in purity by any similar product in the market, and it still remains, as for over one hundred years past, the standard of purity and excellence, and the most healthful and nutritive cocoa in the world.

A CONVENIENT LIST.—F. A. Davis, the medical book publisher, of 1,231 Filbert street, Philadelphia, has issued the most convenient Medical Bulletin Visiting List we have ever seen. It is handsomely bound in fine, strong leather, with flap, compact and convenient for carrying.

THE SUBSCRIPTION PRICE OF THE HERALD OF HEALTH continues at ONE DOLLAR per annum, cheap enough for the vast amount of practical Hygienic information contained in its pages. We offer liberal terms to agents. Anyone can act as an agent, and we will send inducements upon application by postal. Our friends can help us extend the HERALD'S field of influence, by recommending their acquaintances to subscribe. We will send sample copies to any address requested.

OUR UNPRECEDENTED PREMIUM LIST.—We call especial attention to our unprecedented premium list for the ensuing year. It will be found on another page of this issue. The HERALD OF HEALTH is fully worth One Dollar a year, and the premium offer is not made with any intention of pushing this magazine, the HERALD keeps and increases its circulation solely upon its own merits. But we have the opportunity of assisting our friends to procure good literature at reduced prices, and we are desirous that they should avail themselves of the chance, therefore, we make the following offers:

We will send the *Ladies' Home Companion* (published at \$1.00 per year), the HERALD OF HEALTH (\$1.00 per year) and a copy of the famous picture of "Christ Before Pilate" for \$1.30.

The Housemaker, a first class magazine, (published at \$2.00 per year) edited by Mrs. Crowley, (known throughout the country as

one of the brightest lights in literature, under her nom de plume of "Jenny June") together with the HERALD OF HEALTH, for only \$1.75.

The *Cottage Hearth* (published at \$2.00 per year) one of the best family magazines in the country, and the HERALD OF HEALTH for only \$1.50.

We have secured a large edition of Cooper's Famous Leather Stocking Tales which we almost give away. To every new and old subscriber who sends us One Dollar and Twenty-Five cents we will mail the HERALD OF HEALTH for One Year, and in addition send these famous stories, the series complete in one large, handsome volume, in paper, with illuminated title page, and printed in clear type. This offer is an exceptional one and should be taken advantage of without delay.

Read over the above list, take advantage of it, and induce your friends to subscribe for the HERALD. It will pay you and them to do so.

HEALTH INVENTIONS AND APPLIANCES.

A FOLDING BATH-TUB.—A siren is merely a new French bath-tub that shuts up and stands against the wall like a wardrobe. In the small compass of this article of furniture there may be found a full-sized bath, a water-heating apparatus and a space for drying linen. As it stands closed against the wall, the tub occupies a space on the floor only about two feet square. Upon removing four pegs that seem to hold what appears to be the front panel of the wardrobe, the tub tilts down to a horizontal position just as a folding bed opens. The doors at the side swing out of the way, and everything is ready for a bath. There is an apparatus for heating water, which is attached to the wall and is covered by the tub when turned up. A gas ring heats the water as it flows through a pipe coil, and extinguishes itself automatically if the water is not present, thus preventing the burning out of the coil. The removal of the plug in the bottom of the tub empties its contents into the house drain in the usual manner. They sell these tubs in France for \$100 to \$300.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

PERSPIRING HANDS.—A few grains of alum in tepid water will relieve people whose hands perspire very freely, rendering them unpleasantly moist.

ONE WAY OF RELIEVING PAIN.—A rubber bag filled with water as hot as the skin will bear, will often give great relief in cases of acute pain.

J. H. P., Pottsville, Pa.—In reply to question as to cold feet, see "Ammonia," below. Send particulars as to habits of life, diet, and we can then understandingly give you information upon the other points you desire.

W. G. S., Denver, Colorado.—We had intended to reply in this issue to questions on digestibility of oils, fat, butter, and whether these articles should be used by dyspeptics, but the replies take up so much space, that we are forced to leave them over till next month. They will make interesting reading then.

AMMONIA, COLD FEET AND PIMPLES.—In reply to J. W. W., would state that in medicine the solution of ammonia is employed as a means of rousing the respiratory and vascular systems, and of the alleviation of spasms. It is also used as a local irritant and antacid. It can be used as a wash in water, for the scalp and in the bath without danger. The cause of cold feet is an insufficient supply of blood in the parts to keep up the temperature. There are many so-called remedies for this distressing complaint, but in our experience massage is the most effectual. First, dip the foot into tepid or cool water only for an instant, and then begin at once to manipulate it thoroughly by stretching, pressure, rubbing, and every form of manipulation you can devise; simple

rubbing is not sufficient. Let the manipulation extend to the knee, and continue for six or eight minutes. Then slap the bottoms of the feet quite hard. After one foot has been treated, begin on the other. It may be done before bedtime and on rising in the morning. If the patient is not able to do it for himself, let a strong assistant do it for him. Squeeze the matter out of the pimples thoroughly as they mature, and rub the face lightly with sulphur powder. Do not shave close. Let the diet be simple and nutritious, with plenty of fruit.

A CURE FOR WARTS.—I removed a formidable wart from my daughter's hand, says a writer in *Home Queen*, by the application of simple lemon juice, which is an infallible cure. The wart requires saturating with the juice once or twice a day for three or four days, or about a week in some cases. The wart diminishes gradually and disappears altogether, without pain, and leaving no mark and without incurring any of the risks mentioned in connection with the professional process. Another equally efficacious and harmless method is to saturate the wart with potato water daily for about a week, or, better still, with the froth obtained from the water while the potatoes are being boiled.

A HARMLESS COSMETIC is half a cupful of oatmeal and two and one-half cups of water; let it stand over night, and in the morning turn off the water and coarser part of the meal; strain the rest and add enough bay rum to make it the thickness of cream. Apply to the face, hands and neck every night, and frequently during the day; it will make them very soft.

REMEDIES FOR BURNS.—It is essential in case of a burn to exclude the air, especially if the skin is broken. A paste made of soot, common baking soda, or even flour, is valuable in case there is an abrasion of the skin. In case the skin is broken, the white of an egg is about as valuable as anything likely to be at hand. Wrap up the injured part in soft linen cloth, such as should always be kept in a roll in the kitchen drawer, where it will be convenient in case of accident. A bottle, in which there are equal parts of lime water and sweet oil, stirred or shaken to a cream, ought also to be kept in readiness to wet the linen bandage. If

the burn is a bad one, and the pain is so intolerable that one can think of nothing but the wonderful martyrs boiled in oil, and how they endured it, apply a poultice of powdered slippery elm which has had its surface moistened with a few drops of laudanum. The writer lately cooked a finger, and this remedy alone made sleep possible.

TREATMENT FOR SLEEPLESSNESS.—Rise and chafe the body and extremities with a brush or towel, or rub smartly with the hands to promote circulation, and withdraw the excessive amount of blood from the brain, and he will fall asleep in a few moments. A cold bath or sponge bath and rubbing, or a good run, or a rapid walk in the open air, or going up and down stairs a few times just before retiring, will aid in equalising circulation and promoting sleep. These rules are simple and easy of application in all cases. Never take opiates or any kind of medicine unless absolutely needful. In "Land and Water," Frank Buckland once said, that when he was over-worked and felt he might not be able to sleep, he ate two or three small raw onions, and they always produced the desired effect. Eat them with salt, bread and butter. If you cannot take them raw, let them be parboiled—the water poured off; then cut up the onions, add peper, salt and a little butter, and a good dredging of flour. Then stew them in milk till quite tender.

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No. 2.

THE HYGIENIC TREATMENT OF CONSUMPTION.

No. 7.

BY M. L. HOLBROOK, M. D.

CLIMATE.

CLIMATE is an important factor both in the prevention and cure of consumption. A glance at the statistical atlas of the United States, published as a part of the report of the census every ten years, shows several regions where there is little or no consumption. One of these regions is on the Cumberland mountains, of Tennessee; others is a portion of the Adirondacks, in New York; others, parts of Florida, Colorado, California, etc. Most of these places are sparsely settled, and the inhabitants live principally in the open air, or by hunting and fishing, and such agricultural pursuits as are conducted in the simplest manner, and these conditions, no doubt, act favorably in preventing the disease, as well as the climate.

As it may help to a clear presentation of the subject, it will be well to define the word climate. By climate, I understand that condition of the atmosphere which relates to its heat, moisture, pressure, and that electrical state of which so little is known. To these may perhaps be added such movements of the air as winds, storms, cyclones, etc.

Some of the most important factors that influence climate are nearness or distance from the equator, or large bodies of water; the presence or absence of mountains, deserts, and swamps; the height of the place above the level of the sea; the character of the soil; number of clear or cloudy days, and the character and extent of vegetation. Climates are also modified by man in clearing the land, draining wet soils, cultivating crops; also in building cities and factories, from which escape smoke and dust to cloud and obstruct the rays of the sun. Man improves the climate by some of these acts, and injures it by others.

For practicable purposes, climates may be classified as cold, hot, temperate, mild, wet, dry, cold moist and warm moist, equable, and changeable. We sometimes speak of a sunny climate, a bracing, exhilarating climate, a relaxing climate, a windy climate, and these expressions carry with them a certain force not carried by more scientific terms.

It may be safely said that only a comparatively small portion of the earth's surface has an ideal climate for the best development of the race. Much of it is unfavorable either by excess of heat, cold, or moisture, and other conditions not favorable to man in his best condition. Still, by clothing, houses, and other means, we create around us an artificial climate in which life is made, not only tolerable, but actually delightful for healthy people most of the time. And, as our sanitary knowledge and our wealth increases, we shall, no doubt, be able to improve this artificial climate so as to avoid many of its present evils, especially the foul air from imperfect ventilation, and the lack of light, by better arrangements for admitting more sunshine, and, like the old Romans, having rooms where sun baths may be taken. As I shall speak of sun baths later, I will say no more concerning them in this place.

The climate of an elevated region is noted for the absence of consumption. Dr. Herman Weber, in a work much quoted on the Swiss Alps, says: Tubercular phthisis occurs not rarely in the lower mountainous or sub-Alpine region, but in the true Alpine region it seems to be almost absent. Thus, it is of very rare occurrence among the priests on the great St. Bernard. And Dr.

Brüger has scarcely ever observed it amongst those inhabitants of the Upper Engadin who have not resided in other countries; and has further found that this disease is generally cured in the natives of Engadin when they return to their mountains (after having contracted it elsewhere) before it has made great progress. Dr. Albert. of Briançon, in the Dunphine (4,283 feet above the level of the sea), bears, according to Lombard, the same testimony. These observations are quite in harmony with what we know of the occurrence of tubercular phthisis in other mountainous countries. Thus, patients afflicted with phthisis at Lima, S. A., are sent on the adjacent mountains of Peru, where phthisis is scarcely known, at an elevation of about 8,000 feet. It is described as very rare at Mexico (7,000 feet) and Quinto (8,700 feet) and still more so in higher elevations. The elevation beyond which phthisis becomes rare, or is absent, seems to vary considerably in different latitudes, and to become lower as we proceed toward the poles. In the tropical zone it may be regarded as becoming rare at 7,000 feet; in the warm temperate zone, above 3,500 to 5,000 feet; in the colder temperate zone, above 1,300 to 3,000 feet elevation. In Switzerland, between 46° and 48° n. lat., the frequency of its occurrence diminishes above 3,000 feet; in the Black Forest, between 47° and 49° n. lat., above 2,500; in the Thüringen and Silicia, and in the Hartz, between 50° and 52° n. lat., above 1200 to 1400 feet. Fuchs states that at Brotterode (1800 feet) in the mountains of Thüringen the percentage of deaths from phthisis is only 0.9. Brehmer assures us that in the neighborhood of Görbersdorf, in Silicia (1700 feet high) tubercular phthisis has never been seen by him among the inhabitants, an observation which Dr. H. Beigel, who has for several years resided at Remerz (1700 feet above the sea and near to Görbersdorf) has confirmed."

Dr. Parks, in his elaborate work on Hygiene, adds to this that "Although on the Alps, phthisis is thus arrested in strangers, in many places the Swiss women on the lower heights suffer greatly from it; the curse is a social one; the women employed in making embroidery congregate all day in small ill-ventilated low rooms, where they are often obliged to be in a constrained position;

their food is of a poor quality. The men, who live in the open air, being exempt."

The same results have been observed in our own country. The United States offer as varied and as fine varieties of climate as can be desired for the consumptive. Almost every state has some portions which may be called particularly healthful. For high altitudes Colorado offers advantages of a very high order. There is great immunity from consumption on the high mountains of this state, except in cases where the disease has been acquired elsewhere. Thousands of persons have recovered from the early stages of this disease in the high Rocky Mountain regions, some patients going to an altitude of 11000 feet above the sea. California, Florida, the Carolinas, some portions of Tennessee, New York, and a portion of New Jersey, Minnesota and other states offer advantages for those who have a tendency to consumption. Sometimes a residence of a few months or years in the best of these climates lifts the patient above the line of danger from this disease, so that with care he will go through life and escape it altogether.

It may be asked why a high altitude is favorable for such persons.

The following are the main reasons:

1. At a high altitude the weight of the air is much less and consequently respiration must be deeper to secure sufficient oxygen for the needs of the system. This is an advantage of great value, as has already been shown.
2. The micro-organisms which cause consumption do not thrive in high altitudes, and there is also far less dust in the air a few thousand feet above the level of the sea to irritate the lungs.
3. There is less moisture also, and a dry air is favorable to the consumptive. In a dry air the carbonic acid given off and all the products of respiration are more abundant, and this relieves the system of the poisonous products of the body. The skin also throws off more easily its excretory matter. Excessive moisture in the air acts to some extent on the system as a board over a chimney which carries off the smoke. It shuts in more or less the products of changes in the body which ought to be allowed to escape.

6. There is also less cloudiness and more light and sunshine, and this also is a favorable condition, as will be seen later.

7. Mountain air at a height of 5000 to 8000 feet is cooler and more bracing during the entire year.

8. There is less strain on the body. There is generally an absence of large cities and other corrupting and injurious influences. The scenery has a good psychological effect on the nervous system. There are opportunities for climbing, hunting and botanical, geological and other studies which keep those who are strong enough in the open air, and interested, and these all have a favorable influence.

Mr. Buck informs me that when building bridges in South America he knew a consumptive who found Californian climate unfavorable but lived in comparatively good health at an elevation of 11,000 feet, on the mountains of Peru.

It must not be inferred however that I would send all persons with a tendency to this disease to the mountains. Almost any region that is generally healthful and where the death rate from this disease is low may be all that is required.

The following characteristics of a good climate may guide us:

1. A dry rather than a moist or wet climate.
2. A cool rather than a hot one, though there are some hot dry climates where the disease is rare.
3. A climate sufficiently elevated to avoid malaria, or one where this disease is absent. A malarious climate favors consumption.
4. As a dry climate is more likely to go with a sandy rather than a clay soil, this should be borne in mind. A sandy soil becomes dry quickly by the percolation of the water through it; a clay soil holds the water till much of it evaporates into the air, and this evaporation cools the soil, and the people suffer from colds through cold wet feet which they do not do to such an extent on a sandy soil. I remember very well a man with a large family who years ago lived in Lakewood, N. J., who always insisted that his family were free from colds on the sandy soil of that place, because their feet were rarely wet.
5. It has been a belief of physicians that a mild climate is favor-

able for the consumptive and one where there are few winds or slight changes, but this is not necessary, changes are not so great evils as stagnation of the air.

6. Sunshine is a great purifier of the air and destroyer of germs, and so a climate with abundance of sunshine may be considered more favorable than one in which cloudiness prevails.

ON TOILET HYGIENE.

HOW WOMEN SHOULD CARE FOR THEIR FEET.

A LADY who is thoroughly posted on the subject contributes the following upon the subject of Toilet Hygienics :

The aim of toilet hygienics is to keep every part of the body in a balanced, smooth, perfectly healthy condition and thereby to attain positive or approximative beauty on a sound and enduring basis. Their value is not immediately discernible, but is a matter of slow, surely progressive growth. Women are often—nay, generally—dull-skinned, dull-eyed and lacking in freshness and bloom simply because of the unhygienic condition of their lives. If the body be treated hygienically in the daily care taken of it, the chances are that no morbid appetites, destroying not only beauty, but health and good name and happiness, will fasten themselves upon it. To sound this note is not superfluous in a day when the most trustworthy and least sensational authorities acknowledge a perilous growth in the habits of morphia and chloral and intoxicating spirits among women of the better class. Much is exaggerated in this line, but too much of truth yet remains. And if this caution—that in purely, wholesomely hygienic care of the person much power resides to check the incipient stages of morbid habits—reaches some individual person struggling in the grasp of such habits some good may perhaps be accomplished. It has been said, and justly, that if women would all live with perfect regard to every law that health and the constitution of the human body demand

THERE WOULD BE NO COMMANDMENTS BROKEN

by any of them. All morbid perversions have their birth in some infringement of simple physical laws. If your body is well-bathed and well-ventilated and properly exercised you are not likely to have any accessions of temper; your views of others are unconsciously more charitable and so forth. You rise above the small worries of life without effort, and if you wish to look pretty and to look young you absolutely must do this as a necessary thing. Large trials, great sorrows often improve a woman's looks instead of taking away from them. They deepen expression, give interest and a sort of perspective to the face. Small worries are the greatest beauty and youth killers in the world and they cannot be avoided, therefore reduce their power by being superior to them. And let it be repeated, this serenity is what the hygienics of the toilet, precisely, will help you to, and swiftly and surely. Of all women Americans need them. Our climate is trying to the nerves; our high-pressure life breeds a natural state of irritation. To say "Don't mind things" when the nervous organization is all a tingle is ridiculous. Treat the nerves properly first and then the advice will not be necessary. The countenances of young and of some old women have

A BEAUTY THAT HAS NOTHING TO DO WITH FEATURES OR COLORING; that is due to this serenity, and absolutely to no other gift. If you are a woman of judgment you will by all means cultivate it. "That is all very well," observed a woman precisely of this type not long ago, "but you cannot expect a woman to be serene when her feet trouble her. And it is the sad truth that seven out of every ten American women have corns or bunions, or both." This is probably true. Chiropodists are nowhere as much in demand. Well, toilet hygienics reach this affliction also. They enjoin the constant daily bathing, and chiropodists go so far as to say that if you wish to keep the feet in good condition you must bathe them in cold water twice each day. They also tell you, as do the hygienics of the toilet, that stockings should never be worn twice in succession without airing. They tell you not to wear too tight shoes and the hygienics of the toilet insist on your never impeding

the perfection of the circulation anywhere. Moreover, there are specifics that can be tried in time and which tend to keep this unsightly trouble down. When soft corns begin to declare themselves wear a bit of soft linen rag, or lint, between the toes affected day and night. Change the same after bathing and touch the place with chalk or starch or, in fact, any kind of powder.

THE OBJECT IS TO ABSORB THE MOISTURE.

Then take a camel's-hair pencil, dip it in acetic acid and just touch the corn therewith. One drop of the acid is sufficient. More would produce inflammation. Do this two or three days running, then soak the feet in very hot water. The soft corn is easily removed with a penknife. Resume treatment with the lint again. By continued watchfulness of this kind soft corns can be entirely kept under. For hard corns never use a knife. Remove the accumulation of callous skin with the nail. Then, when this is done, be careful to extract the infinitesimal heart of the corn—the tiny speck which forms its core and which, so long as it is imbedded in the flesh, will cause repeated annoyance. Many bad corns could be entirely prevented if they were taken in their first stages. The initial symptoms are generally neglected. Instead of this, a corn-protector (one of the small rings with a perforation in the centre, adhesive on one side and covered with flannel on the other) should be placed over the suspicious spot at once and this, religiously worn, protecting it from all friction from the shoe until the tenderness has passed away. Hot foot-baths, with a handful of kitchen salt thrown in the water, give the feet elasticity and keep other troubles at bay. After soaking the feet in the hot salt water, dip rapidly into cold water and dry. This douche strengthens and toughens and prevents soreness and tenderness generally. The present fashion of wearing shoes considerably longer than the foot will be an excellent one for preventing enlarged joints and bunions, but the other fad that accompanies it—

THE LIKING FOR A NARROW SHOE—IS DISASTROUS.

American women carry this fondness for the pointed toe to an extreme. Neither French nor English bootmakers ever turn out soles so narrow or toes so contracted. They always give an

abundance of room across the ball of the foot, and it is, perhaps, for this reason as much as for any other that French and English women enjoy a comparative immunity from the pedal tortures endured by Americans. Such tortures as these, coupled with facial neuralgia, the American woman's other chronic affliction, will sap and annihilate beauty in a short time. Anything that wears upon the nerves puckers the forehead, spoils the lines of the mouth. Sharp attacks of severe illness often beautify. The reason is easy to discover. There is a great upheaval of the whole system, and often a radical renovating thereof. Extreme prostration induces a lengthened period of rest. During convalescence the diet is carefully guarded. The conditions of life are all thoroughly hygienic for a time. The result shows in a clearer skin, in brighter eyes, in

A CERTAIN FRESH, REPOSEFUL, MADE-OVER, NEWLY LOOK.

But carking pains and aches simply cause you to look ugly and old and haggard and fretful. Live as hygienically as possible, therefore, and avoid them. Fortunately the day of invalidism has gone out. No one now admires a sickly girl, who is talked of at Summer watering-places, where her superb, well-groomed health and grace show to perfection in every outdoor sport; who is made the heroine of the new novel and the subject of the essay in the current magazine. It is she whom men now feel it the "correct thing" to fall in love with. She is in the full swim of favor, and for once common sense, enlightened judgment and the foibles of fashion are in perfect harmony and accord. The day will soon come when unhealthy conditions of life

WILL SEEM TO ALL A SORT OF DEGRADATION,

and when the rightful hygienic care of the body will become as much a matter of religion, of moral obligation, as telling the truth or respecting your neighbor's goods. Men have led the way with their cold "tubs" and their athletics. It is more than time that women followed the lead.

CHILDLESS AMERICAN WOMEN.

THE REMARKABLE FIGURES DEVELOPED BY THE CENSUS
IN MASSACHUSETTS.

The fact that the total population of the United States has fallen below the popular estimate of 64,000,000 is likely to call attention to the fecundity of American women. Not long ago a sensational newspaper took a census of the children in certain fashionable quarters of New York, and brought to light the fact that comparatively few children gladdened the spacious homes of Murray Hill, and that the birthrate was alarmingly low in that city. The last State census of Massachusetts brings out some interesting facts in relation to the percentage of married women having no children, which may set some wise people thinking. Here is a table compiled from the Massachusetts census showing the percentage of native and of foreign born women having children :

	MARRIED WOMEN WITHOUT CHILDREN.	
	<i>Native born.</i>	<i>Foreign born.</i>
The State.....	20.18	13.27
Barnstable.....	16.95	14.77
Berkshire.....	17.94	9.94
Bristol.....	19.61	13.08
Dukes.....	20.00	14.89
Essex.....	19.43	13.78
Franklin.....	19.33	11.20
Hampden.....	20.86	11.98
Hampshire.....	20.23	12.61
Middlesex.....	19.92	13.52
Nantucket.....	17.26	27.03
Norfolk.....	17.63	11.67
Plymouth.....	18.58	13.28
Suffolk.....	23.89	14.94
Worcester.....	20.03	10.99

Here we find, says a popular writer, that one-fifth of the native married women of Massachusetts are childless. It is said that in no country save France can a similar condition of affairs be found. On the other hand, instead of over 20 per cent only 13.27 per cent of the foreign-born women of Massachusetts are childless. What

is true of this State is undoubtedly in a greater or less degree true throughout the country. The time has come when we must face the fact that the increase of population by birth is decreasing—that the tendency of the times among well-to-do Americans is to small families, and that one-fifth of our native married women are childless.

EDITOR'S STUDY.

PARESIS IS AN AVENGING NEMESIS.—In the fortieth annual report of the State Lunatic Asylum at Harrisburg, Pennsylvania, Superintendent Gerhard speaks very gravely of the ominous increase in insanity. Finding reasonable cause for alarm in the train of evils that follows “the tremendous tension of our present civilization,” he says: “The one type of insanity which is largely on the increase among the male portion of the human family, is general paresis, the most fatal, incurable, and fearful of all forms of insanity. During the year we admitted eighteen cases suffering from this hopeless disease. In eleven of these there was a history of syphilis, which cases occurred in early manhood. In most of these it was supposed the syphilis had been cured, but afterward, when either the burdens of life became heavy, or they met with some reverses, or received an injury to the head, the paresis developed and usually ran a rapid course.

“The curious thing about paresis is that it is a sort of an avenging nemesis. Long after the excess of youth or early manhood, whether by drink, riotous living, excessive use of tobacco, or what not, when a man thinks he has passed through the roughest and most trying times of his life, and looks forward to a green old age, passed in happiness and peace, he is apt to meet this most dreaded foe of the fireside. An accident or slight business reverse may occur, and unless his system can interpose enough resistance, he is a victim to this most terrible of monsters that prey on our human frame. I am sure that if many of the young business men of the country could see some of the awful object-lessons within these walls, they would shudder and instantly change their mode of life. Business would not entirely engross

their time, and healthful relaxation and recreation would receive some attention at their hands. And all the more appalling is the picture where there is a hereditary predisposition to insanity. In the almost fierce and intense life that the student, scholar, business or professional man leads in his desire for fame, these thoughts of the possible future in store 'should give him pause.' He certainly would not care to 'make his quietus' in the dreadful way I have seen many such here pass off the stage of existence. And yet, strange to say, when you ask a paretic how he fares, he invariably answers, 'I am quite well.'

WHERE SMALLPOX IS EXTINCT.—As stated in a medical journal, not a single death from smallpox was registered in Ireland in 1889. From this scourge, at all events, "the distressful country" appears to be gradually freeing itself. During the last ten years the average annual number of deaths was a hundred and thirty, but this average is due to the more serious state of things prevailing in the early stages of the decade. Since 1883 there has been one year in which the number of deaths from smallpox was as high as fourteen. That was in 1887. In 1885 there were but four deaths from smallpox registered in Ireland; in 1886, two; in 1884 there was only one; in 1888 there were three, and, as above stated, in 1889 there was not one.

COLOR OF EYES IN HYPNOTISM.—People who have hazel eyes do not hypnotize easily. The lighter the eye the more easily the work is done. People with dark eyes are more nervous than those with light eyes, and it is difficult for the former to concentrate their sight and thoughts.—*Chicago Tribune*.

THE REVOLUTION IN MEDICINE.—Dr. Austin Flint about two years ago published an article on "A Possible Revolution in Medicine," in which he said: "The science and practice of medicine and surgery are undergoing a revolution of such magnitude and importance that its limits can hardly be conceived. Looking into the future in the light of recent discoveries, it does not seem impossible that a time may come when the cause of every infectious disease will be known; when all such diseases will be preventable or easily curable; when protection can be afforded against all diseases, such as scarlet fever, measles, yellow fever, whooping

cough, etc., in which one attack secures immunity from such contagion; when, in short, no constitutional disease will be incurable and such scourges as epidemics will be unknown." It would certainly seem that this prediction is on the eve of verification. Dr. Flint returns to the subject, and reviews the ground covered by the Koch experiments which are supposed to be in course of continuation and extension for the purpose of finding a cure for typhus and typhoid, scarlet fever, measles and diphtheria. It is possible that the line of research to be adopted will be in the direction of finding a special poison, produced by micro-organisms peculiar to each infectious disease, which will act upon these micro-organisms and the diseased parts as the curative lymph has been found to act upon tubercle bacilli and tuberculous tissue. Based on this supposition, Dr. Flint hazards another speculation as to developments in medicine that may soon be looked for. It is shown to be possible that in the near future many curative lymphs will be discovered, each produced by the special micro-organism of a particular disease. It will not, considering what has recently been accomplished by Dr. Koch, be too much to expect that these agents will promptly arrest the different diseases to which they are applicable. For example, the typhoid lymph, the diphtheritic lymph, the lymph for measles, that for scarlet fever and so on, will promptly arrest these diseases and save patients from the degenerations and the accidents which are liable to occur when morbid processes are allowed to run their course; and convalescence will be prompt, because the disease will not have produced damage which can be repaired only by time. "Truly," Dr. Flint says, "this would be a revolution in medicine, and it now seems to be impending."

FURROWS ON THE FINGER NAILS.—Nearly twenty years ago Dr. Wilks directed attention to the curious fact that a transverse furrow always appears on the nails after a serious illness. Medical men ignored what they called the visionary opinions of Mr. Wilks, giving the matter but little attention in their medical works. Recently a new interest in the subject has been revived and pathological societies have begun an investigation. One remarkable case shows nail furrows caused by three day's sea sickness.

SLEEP UNNECESSARY AND EATING A MERE HABIT, MR. ROLLE SAYS.—Charles Egbert Francis Rolle, of Hartford, Conn., wrote a letter to the Boston Globe a few days ago telling what a wonderful man he was. Mr. Rolle does not sleep, has not slept for eighteen or twenty years and has subsisted for thirty consecutive days upon a single pound of ordinary soda crackers. He is a firm believer in the saying that eating is an expensive habit and practices his belief. He has never swallowed a morsel of meat of any description nor a particle of any vegetable commonly classed as garden truck. He has never drunk maltous or spirituous liquors or tasted coffee or tea. He says he has never taken a drink of water and never ate anything which has salt in it. Rolle says he was a federal soldier in the late war and when held a prisoner for 20 days, neither ate, slept or drank during that time. He was born in Hartford in 1835 and lived there 16 years. He then went to Canada and lived there 16 years. He crossed the plains in a wagon in early times and spent several years on the prairies of Texas, where the only roof that covered him was the sky and the moon and stars were his substitute for the frontiersman's tallow dip. Rolle says he is a mind reader and his ability to exist for days without sleeping, eating or drinking is the result of his control over his inclination to sleep. He says any one can accomplish any of the feats of which he is capable, if they will only train themselves to do without sleep, which, he says, is horrible for any one. He says he has not slept for 20 years, and could not sleep if he so desired. Some of Rolle's experiences are, having been ship-wrecked twice and lashed to a spar and left afloat in mid-ocean 10 days without food or rest. He says both eating and sleeping are habits to be governed, and that any one can govern them.

AN UNPARALLELED CASE OF HICCOUGH.—An inhabitant of Meriden, aged 45, a coach painter by trade, has had an attack of hicough, the like of which has perhaps never been known. It lasted without interruption 12 days and nine hours. The doctors consider it very extraordinary that the man has survived, as in the opinion of Hippocrates—disputed by Galen, but generally accepted by the medical profession—no person can have the hicough for

nine days in succession without giving up the ghost with his last hiccough on the ninth day.

GRAFTING IN THE ANIMAL KINGDOM.—Dr. Ricketts, of Ohio, in a paper read before the New York Medical Society, tells of some interesting results obtained in bone and skin grafting. He says: "The oculists have displayed unbounded energy and exalted skill, as shown by their success in transplanting the cornea of the cat, dog and rabbit to the eyes of human beings, and of mucous membrane to the conjunctiva for the correction of deformity as the result of troubles in infancy. It is now demonstrated that the muscles of lower animals may be successfully transplanted to the nerve stumps of man. Dr. Redart successfully grafted the skin of a chicken upon a child 2 years old. Dr. Barton succeeded in grafting the skin of a dead man 70 years old to that of a boy 14 years old. Dr. Walker was equally successful in transplanting the mucous membrane of frogs, rabbits and pigeons to mucous membrane areas in man previously occupied by cicatricial tissue, and was the first to show that mucous membranes remain soft when they are transplanted to mucous membranes, but become skin if they are transplanted to the skin."

FALSE TEETH LENGTHEN LIFE.—Very few people realize how much the dentist has done for mankind. To mention one thing only, the perfection to which the manufacture of false teeth has been carried has practically abolished old age—that is, old age in the sense that I used to know it. You see none of the helpless, mumbling old men and women that you formerly did. This is not because people do not attain the age their parents and grandparents reached, but because the dentist has prevented some of the most unpleasant consequences of advancing years. Men of 70 no longer either look or feel old, because they are not deprived of nourishing food at the time when they need it most. Estimates have been made showing that the average length of life has been increased from four to six years by the general use of false teeth.
—*Post-Dispatch.*

OUR RULES FOR GOOD HEALTH.

1. Be regular with you habits.
 2. If possible go to bed at the same hour every night.
 3. Rise in the morning soon after you are awake.
 4. A sponge bath of cold or tepid water should be followed by friction with towel or hand.
 5. Eat plain food.
 6. Begin your morning meal with fruit.
 7. Don't go to work immediately after eating.
 8. Be moderate in the use of liquids at all seasons.
 9. It is safer to filter and boil drinking water.
 10. Exercise in open air whenever the weather permits.
 11. In malarious districts do your walking in the middle of the day.
 12. Keep the feet comfortable and well protected.
 13. Wear woolen clothing the year round.
 14. See that your sleeping rooms and living rooms are well ventilated, and that sewer gas does not enter them.
 15. Brush your teeth at least twice a day, night and morning.
 16. Don't worry, it interferes with the healthful action of the stomach.
 17. You must have interesting occupation in vigorous old age. Continue to keep the brain active. Rest means rust.
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IN DEFENCE OF THE DOCTORS.—An old subscriber to the *HERALD OF HEALTH* at Kingston, New York, writes: My Wife and me both feel almost disgusted with the article in the January Number, entitled "A plan to abolish the present class of doctors." It is no wonder that the creature from whom the remarks emanated withheld his name. Such statements as "Sickness is a *crime* and should be punished as such," and "The present class of doctors are *all humbugs* and should be exterminated from the face of the earth" are outrageous. I presume the selfish chap would like to have all the others annihilated, in order that he could have the field all to himself for awhile. There is no doubt about there being humbugs and quacks in the medical profession, But the careful, conscientious painstaking family Physician is not to blame for them. Such random statements are too sweeping and unreasonable, neither *all* nor *half* of the medical fraternity are hum bugs.

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY MRS. F. C. PRESSLER.)

FOR THE BENEFIT OF FLAT CHESTED YOUNG MEN.—A writer in the *World* tells how a prominent society matron instructed a class of flat chested young lady friends in practical athletics and of the results that followed. "The trouble with you girls," she said, and she included two wives present in this category, "is that you are starving." There was a murmur of surprise at this, and the young women looked at each other. "I don't mean you are starving your stomachs," continued the matron, "but you are starving your lungs. You don't drink in enough air, and what you do take in you take improperly. Now, what I want you all to do is to try to imitate my manner of breathing for one month and take this lung exercise not less than four times a day for the first week, and a dozen times a day thereafter. Now all stand up—hands at your sides—let them hang naturally—chins up and mouth shut. See how I do it." The teacher threw her shoulders back, and slowly took a deep inhalation through the nostrils. The well-rounded bust filled out and the veins on the neck swelled. A tape-measure taken in hand by the speaker, before she began to talk, was placed under her arms and around the chest. It showed a measurement of $38\frac{3}{4}$ inches. Then the air was slowly expelled from the lungs, and the tape was drawn taut at 35 inches, showing an expansion of $3\frac{3}{4}$ inches.

"It is important," said the instructor, as she threw the tape aside, "that this exercise be taken in the open air, and to gain the benefits I have mentioned you must observe these rules:

"First—wear no cosets at all, or, if you must wear them, have them looser than you ever wore them before.

"Second—Breathe through the nose and keep your mouth shut. This is of vital importance.

"Third—Take a breath with every step as you walk, and continue this until the lungs are full. Then exhale the air more rapidly than you took it in and empty the lungs completely. This is as important as breathing through the nostrils, because it

empties the lower lobes of the lungs that are rarely called into action except during violent exercise. Their capacity is increased and strengthened by use. Follow out these rules for a month and report results."

The instructions were faithfully carried out by four of the party. One of the girls became ill and was unable to make the test. Of the four who carried it out, the most noticeable improvement was that of the young woman with the weak lungs. She had gained three pounds in weight, her appetite was good, her eyes brighter and the muddy complexion showed signs of clearing. "It was really a task at first," she said. "I don't think I ever took a deep breath before in my life. I loosened my corsets as directed, and the first deep inhalation gave me a pain in the upper part of my right lung. It seemed, too, that all the blood rushed to my head while I held the air in my lungs, and when I exhaled it all my head began to ache. This continued for three days every time I tried it, but after that it passed away, and then I seemed to get new life. I walked over the big bridge and took in the air from the river twice a week. At the end of ten days my appetite began to increase. I ate more and let out another inch of corset. After that the pain in the right lung disappeared and I didn't feel such a rush of blood to the head. The chest expansion is $2\frac{3}{4}$ inches, an increase of half an inch." The languid young woman made a report later in the day that she could hardly be called languid then, for she was animation itself and declared her intention of continuing the treatment indefinitely. The mother of four boys reported progress. She had, to tell the truth, forgotten her instructions for days at a time, because there was "so much to do at home." The childless wife was as lively as a sixteen-year-old school girl, and her chest measurement had increased from $31\frac{1}{2}$ inches uninflated.

WET WEATHER PETTICOATS are a sensible innovation. They are made of ordinary woolen material, lined for the depth of half a yard with a fancy waterproof stuff, so that, however wet and damp a day it may be, the wearer will stand no risk of catching cold by a wet skirt dabbling round her feet in the supremely uncomfortable manner which skirts have on a pouring wet day. These and

the gaiters which common sense women have also adopted—usually made to match the color of the dress—go a long way toward making a woman as careless of the weather as a man.

THE NATURE OF HYSTERIA.—The basis of the hysterical state is explained by a German medical writer to be an irritable weakness, so that the influence of external and internal stimuli is increased and made easier. Certain functions, such as crying, laughing or blushing, are in most persons purely under the control of the emotions. In hysteria, however, the physiological resistance is so reduced that slight emotions of this sort produce maximum effects. Reflex excitability is also increased, minimum stimuli causing maximum reflexes. Hysterical paralysis is either emotional or reflex in its nature. As the centres are more easily excited they are also exhausted more easily. The hysterical paralysis is a true paralysis in that there is an interruption of conduction somewhere between the seat of the will and the motor centres, so that the patient is not able to bring the paralyzed part under the power of the will. In a case of hysterical aphonia, while the patient was unable to talk she could sing or give a cry of pain. In the first case the emotion of singing was enough to overcome the obstacle to will conduction; in the second the cry was reflex. Hysterical anæsthesia is due to an inhibition of the perceptive centres themselves, so that ordinary stimuli are not perceived.

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESLER.)

CONDENSED MILK FOR CITY INFANTS.—The following contribution from a mother is worth reading: "I have lately read about babies nursing the bottles, and having to drink impure cows' milk, which causes so many deaths among children. Now, as I have two children, and raised them both with the bottle, I thought my experience may help some mothers. I feed my baby on condensed milk. Cows' milk did not agree with either of my children. Under the most favorable circumstances, cows' milk is risky,

the cows, perhaps, eating something that disagrees with them. A good brand of condensed milk is always the same, requires no ice, only clean bottles and nipples. I keep two bottles, three or four nipples, clean them with cooking soda and hot water in the morning, during the day and night. When the baby uses one bottle have the other one full of clean water. Buy new nipples about once a month. Boil about a quart of water morning and evening; to good half cup of water, take two teaspoonsful of milk, stir it up, and it is ready to use. Directions are on can for age of children.

BARLEY, SUCH AS IS USED FOR SOUP, is very strengthening for delicate children, or those having delicate or tender stomachs. I give it to mine, says a mother, and she is 16 months old and hearty. Take about two tablespoonsful of barley to a quart of water, put a pinch of salt in it and boil steadily two or three hours. When it boils away add a little water to it so that it is a quart when done, not thick. Use it in place of water with milk.

BREAKING UP COLDS IN CHILDREN.—When children have taken colds there is nothing better to give them than molasses, butter and vinegar; to half-cup molasses take a tablespoonful of butter and two tablespoonsful of vinegar; cook a few minutes, and give a little frequently. Quite young children can take this.

A MATTER OF MONEY.—Young people of both sexes should early be taught the use of money, and to rightly know its value they should be given ways of earning it, to spend, within reasonable limits, as they choose. Much of the work which even little children do in the shape of chores around the house ought to be paid for, as perhaps a better way of getting money into a child's hand than any other. It is very demoralizing to beg, and the child that is encouraged or even allowed to get its spending money in this way, is surely laying up a poor foundation for after life. On the farm the means for earning money should as much as possible be based on farm operations. When the boys see in their own pockets some of the money made by farming they will take more interest in their daily work. Unless parents who are farmers desire to discourage their sons from following this business, they should be allowed to do something each year on their own account and have the money they thus make. The little thus earned early by them-

selves will be worth a hundred times as much as if left to them after the death of their parents, who had previously kept them ignorant of any practical knowledge of the value of money and its uses.

OVERDRESSING CHILDREN.—Most mothers express their tender care for their children in cold weather by piling on unnecessary wraps. The real truth, says a writer in the *N. Y. Sun*, is that children do not need as much clothing as their elders. A healthy child is such a live thing. It is alive from the top of its bobbing round head to the tips of its pink wiggley toes. It isn't still an instant any more than an electric eel. And the constant motion keeps it warm and is designed to. There is another thing that mothers and nurses often do thoughtlessly, and with no end of evil results to the children. This is the habit of dressing them for their out-of-door drive or walk in the warm nursery and then letting them stand around for some time while the nurse gets herself ready. For that is the usual practice. The nurse dresses the baby first, even to gloves and tippet, and then she begins leisurely on the details of her own toilet. Meanwhile the little one waits about in the warm room, getting warmer and warmer, until at last, when it gets into the outer air, it is in a perspiration that will induce a chill at once. A child should not have its wraps put on until the very last moment. And then it should be done, not in a warm room, but in the hall, from which it should be carried as soon as the operation is completed. In that way the change in temperature is modified as much as is possible, and the liability to cold is greatly lessened.

GIVE THE SMALL CHILDREN WATER.—Small children generally receive water only as they get it in their milk or milk food, alike in summer and in winter. It is probable that the fact seldom occurs to a mother or nurse that a child may be thirsty without being hungry at the same time. Certainly many a discomfort and even sickness in a child is conditioned upon the fact that it has been compelled to eat in order to get its thirst satisfied, and often has to suffer thirst because the overstimulated and injured stomach will take no more nourishment at irregular and too short intervals.

A PLEA FOR PURE FOOD.

TO THE EDITOR OF HERALD OF HEALTH: Your articles on properly cooked foods are very interesting, but the food itself is bad in this land of wholesale adulteration. Our land is not protected by pure food laws as in Europe. Can't you uphold the Paddock Pure Food Bill and Conger Bill? We need a little paternal legislation, rather than our present fratricidal legislation. This much protected land is protected in all, but the essentials; pure food, pure drugs, pure clothing (not shoddy), etc.

C. HOWARD YOUNG,

Member of Societe Francaise d'Hygiene, Paris.

HARTFORD, Ct., Jan. 15, 1891.

PUBLISHERS' DEPARTMENT.

A HANDSOME CATALOGUE.—The catalogues issued in the different branches of trade for 1891 show, in many instances, a decided improvement over those of 1890, high as the standard of excellence reached by some of them in that year was. It is a recognized fact that the seed trade leads all others in the beauty and cost of these publications. One now before us, sent out by Wm. Henry Maule, Philadelphia, Pa., well illustrates the truth of the above statement. And it may be added that his catalogue leads in a trade whose catalogues lead all other trades. Its 120 pages are marvels of type composition, engraving, and presswork. In addition to the colored outside pages, twelve colored plates are scattered through the body of the catalogue, which will compare favorably with the lithographer's art as displayed in his most expensive productions. As a catalogue to convey information of the business it advertises, it is equally perfect. The letter press condenses all the needful information which will enable the farmer, gardener, and fruit grower to select such seeds, plants, or trees as he desires, in a wonderfully compact, yet intelligent, manner. The illustrations are used in such connection with the printed descriptions as to give to its readers a clear, accurate conception of the ripened products of Maule's Seeds. Last year Mr. Maule offered and paid \$1,500 in cash prizes for field and garden products raised from his seeds, and \$1,000 for the largest club orders for seeds sent him in 1890. He repeats these offers for the current year. It is no disparage-

ment to many other artistic catalogues, and but simple justice, to say that Maule's Seed Catalogue for 1891 is as near perfection as it seems possible to bring such things.

SAVED DOCTOR'S BILLS.—Mr. J. W. Wilson writes us from Independence, Nev.: "I will say to all that I have read HERALD OF HEALTH one year, and I could not afford to be without it again. It has saved me many times its cost in doctor's bills. It is high toned and reliable.

A CONVENIENT LIST.—F. A. Davis, the medical book publisher, of 1,231 Filbert street, Philadelphia, has issued the most convenient Medical Bulletin Visiting List we have ever seen. It is handsomely bound in fine, strong leather with flap, compact and convenient for carrying.

THE SUBSCRIPTION PRICE OF THE HERALD OF HEALTH continues at ONE DOLLAR per annum, cheap enough for the vast amount of practical Hygienic information contained in its pages. We offer liberal terms to agents. Anyone can act as an agent, and we will send inducements upon application by postal. Our friends can help us extend the HERALD's field of influence, by recommending their acquaintances to subscribe. We will send sample copies to any address requested.

OUR UNPRECEDENTED PREMIUM LIST.—We call especial attention to our unprecedented premium list for the ensuing year. It will be found on another page of this issue. The HERALD OF HEALTH is fully worth One Dollar a year, and the premium offer is not made with any intention of pushing this magazine, the HERALD keeps and increases its circulation solely upon its own merits. But we have the opportunity of assisting our friends to procure good literature at reduced prices, and we are desirous that they should avail themselves of the chance, therefore, we make the following offers:

We will send the *Ladies' Home Companion* (published at \$1.00 per year), the HERALD OF HEALTH (\$1.00 per year) and a copy of the famous picture of "Christ Before Pilate" for \$1.30.

The Housemaker, a first class magazine, (published at \$2.00 per year) edited by Mrs. Crowley, (known throughout the country as one of the brightest lights in literature, under her nom de plume

of "Jenny June") together with the HERALD OF HEALTH, for only \$1.75.

The *Cottage Hearth* (published at \$2.00 per year) one of the best family magazines in the country, and the HERALD OF HEALTH for only \$1.50.

We have secured a large edition of Cooper's Famous Leather Stocking Tales which we almost give away. To every new and old subscriber who sends us One Dollar and Twenty-Five cents we will mail the HERALD OF HEALTH for One Year, and in addition send these famous stories, the series complete in one large, handsome volume, in paper, with illuminated title page, and printed in clear type. This offer is an exceptional one and should be taken advantage of without delay.

Read over the above list, take advantage of it, and induce your friends to subscribe for the HERALD. It will pay you and them to do so.

HEALTH INVENTIONS AND APPLIANCES.

DEVELOPING THE LUNGS AND ENLARGING THE CHEST.—A device recently invented for the promotion of deep breathing is likely to be of value to flat-chested, round-shouldered and weak-lunged people. If the means utilized in this invention shall induce the full deep respiration of which so many people are absolutely ignorant, it will prove a welcome addition to our hygienic appliances. The device is a small belt or cord which encircles the chest at the point of its greatest expansion, and a take-up mechanism to which the ends of the belt or cord are attached. The take-up mechanism consists of a coiled spring, adapted to tighten the belt at intervals, and a train of wheels, by which the speed of the spring in taking up the belt may be regulated. Upon the exhalation of the breath, after the full expansion of the lungs, the chest returns to the size natural to it in ordinary breathing, thus leaving the belt loose. Immediately the take-up mechanism begins to gather in the slack of the belt, which it continues to gather, and finally it tightens the belt about the chest, until the pressure is uncomfortable to the wearer, and compels him to take another full inspiration, thus lengthening the belt. This lengthening is accomplished by the

withdrawal of the strap from the case, which act again coils the spring. The spring in turn, when the breath is exhaled and the chest resumes its natural size, again begins to gather up the slack of the belt. These processes are continued as long as the device is worn. It is claimed that the use of the device induces full breaths at intervals, and thus naturally strengthens and enlarges the lungs and chest.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

THE NATURE OF TUBERCULIS.—"*Inquirer*."—Dr. Dawson thus defines tuberculis: "An excess of fibrine and deficiency of red corpuscles are the chief features of a scrofulous and tuberculous or consumptive constitution. The deposit of tubercle is the deposit of fibrine; the two differing, not in kind, but in degree of vitality and capacity of organization. This low state of organizability does not belong to the whole mass of the fibrine of the blood, else tubercles would be developed in the tissues everywhere, but to a small or large portion, according to the ratio between the red globules and the fibrine. It escapes from the blood in the ordinary processes of nutrition of the tissues and owes its origin to the degraded condition of the nutritive material. The change is retrograding instead of progressive. Where there is a great abundance of this fibrinous substance there is an increased tendency to deposit, which is greatly promoted by all varieties of congestion or inflammation and prevails most in organs which receive the largest supply of blood. This explains the peculiarly pernicious influence of inflammation of internal organs especially of the lungs, in scrofulous persons." With proper hygienic treatment tubercles in the earliest stages under certain conditions can be carried out of the system.

WHEN OYSTERS ARE BAD.—There are moments in the life of an oyster when to eat him is simply suicidal. It is pretty generally

known that the oyster is an unclean feeder, and devours sewage; but if he has once digested this unsavory dainty he may then be eaten with impunity. If, however, he is captured when in the act of sucking in the impure matter he carries typhoid into the blood of anyone who may afterward swallow him.

THE LONGEST LIVED PEOPLE.—The Norwegians, it seems, are the longest lived people under the sun. So we learn from an elaborate table of life and death among the Norwegian people, published by the Norwegian official statistical bureau. The average duration of life in Norway is 48.33 for the men, 51.30 for the women and 49.77 for both sexes. The director of the bureau also shows, by comparison with earlier decades, that the average longevity of the Norwegian folk has considerably increased. "If the mortality in Norway," he writes, "is 17 per cent. more favorable than in central and western Europe, it is greatly due to the comparatively slight mortality among our youngest children."

CREAM FOR INVALIDS.—The fact is not so well known as it deserves to be, that cream constitutes an admirable nutriment for invalids. It is superior to butter, containing more volatile oils. Persons predisposed to consumption, aged persons, or those inclined to cold extremities and feeble digestion, are especially benefited by a liberal use of sweet cream. It is far better than cod liver oil, and, besides being excellent for medical properties, it is highly nutritious food.

SPRAINS ARE AMONG THE MOST SEVERE ACCIDENTS to which we are liable. When a joint is sprained swelling comes on gradually. In dislocation the swelling and loss of motion of the joint happens immediately after the accident. A sprained limb should be kept perfectly quiet. Says a trained nurse: "To prevent inflammation use poultices of wormwood, hops or tansy. Every effort on the part of the patient to repeat in detail the cause of the accident, the sensations, experiences, etc., should be discouraged. Cheerful conversation upon other subjects and perfect rest will bring about speedy recovery, and strengthen all concerned in the belief that it is not always necessary to send for the doctor."

PUTTING UP LIMA BEANS.—Brooklyn reader is informed that

there should be no difficulty in putting up Lima Beans in cans. Do not attempt, however, to preserve them in glass bottles. Can them in the usual way, making the can perfectly air tight. Limas can be bought in cans, and it is nearly as cheap to buy as to put them up.

EGGS FOR DYSPEPTICS.—In reply to western subscriber would state that we can reply this month only to his question as to eggs as food for dyspeptics. These facts have been published before in our pages, but as a matter of interest we reproduce them: "Aside from the water, of which eggs contain less than meat, the former is almost pure nutriment. An egg is more nutritious than meat. There is no waste in flesh. Flesh is the most expensive of foods. Eggs are the cheapest animal food there is. The English vegetarians eat no flesh. They are generally long-lived, much longer than other people average. They use eggs moderately. The way to cook an egg, is to put it into water of a temperature of 180 degrees and let it cook fifteen minutes. The inside or yolk will then be hard, and the white of the egg will not be hard, but flocculent like curd, and easy of digestion. The only dressing admissible on an egg is a little good butter. Pepper and salt are only demanded by a morbid taste. Hard boiled eggs are worse than nothing. A fresh egg dropped in water about 180 degrees Fahr., and allowed to remain some fifteen minutes, so as to cook through, and then laid on a nice piece of brown bread, which has been toasted and dipped in hot water, is good enough for a king. Custards made from eggs are both nutritious and wholesome. For the feeble they are better than beefsteak, and may be used freely.

AN ARTICLE upon the use and abuse of quinine is unavoidably crowded out this month.

ON THE CARE OF THE TEETH.—*J. W.*—The Odontographic Society promulgates these rules: 1. Cleanse your teeth once, or oftener every day. *Always* cleanse them before retiring at night. *Always* pick the teeth and rinse the mouth after eating. 2. Cleansing the teeth consists in thoroughly removing every particle of foreign substance from around the teeth and gums. 3. *To cleanse*, use well-made brushes; soft quill or wood toothpicks; an *antacid styptic toothwash*, and *precipitated chalk*. If these means fail, apply

to reliable dentist. 4. *Always* roll the brush up and down lengthwise of the teeth, by which means you may avoid injuring the gums and necks of the teeth, and more thoroughly cleanse between them. 5 *Never* use a dentrifice containing acid, alkali, charcoal, soap, salt, or any gritty or powerful deterative substance. 6. *Powders* and *pastes* generally are objectionable. They injure the gums and soft parts of the teeth, and greatly assist in forming tartar. *A wash*, properly medicated and carefully prepared, is pleasanter and more beneficial. It dissolves the injurious secretions and deposits, and the whole is readily removed with the brush and water.

OLIVE AND COTTON SEED OILS.—*W. G. S.*, Denver, Colorado.—Pure olive oil is a most healthy article of food. In some countries it takes the place of both butter and meat. Much of the olive oil sold here is made from peanuts and cotton seed. These are not of so fine a flavor and their wholesomeness is an open question. It is probable that the peanut oil is free from injurious properties. It has been contended that cottonseed oil contains unhealthy substances, but this is denied by Dr. Allinson, who used it freely for his own food with beneficial results. Good butter is good food. It is impossible to state how the above should be used as a diet. It depends upon individual cases. Send us exact symptoms and then we will be glad to reply in detail.

THE HERALD OF HEALTH.

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THE
HERALD OF HEALTH.

Forty-first Year.

MARCH, 1891.

No. 3.

THE HYGIENIC TREATMENT OF CONSUMPTION.

No. 8.

BY M. L. HOLBROOK, M. D.

CLOTHING.

In a cold or changeable climate the clothing becomes an important factor in the hygienic treatment of consumption. The strong and the healthy need clothing in order to protect themselves from the cold and the heat, to ward off blows and contact with rough surfaces, or a means of concealment and for the psychical effects which they produce. By psychical effects I refer to the pleasure which one feels when he is well and properly dressed and the gratification to the taste that follows. There are other uses for clothing, as for instance, to distinguish sex-ornament and display, but as these have no hygienic significance, I need not refer to them.

The questions to be considered from the standpoint of hygiene, are :

1. The material from which it shall be made, its weight, color and manner of wearing.

2. The manner of construction.

3. Adaptation to age, sex, climate, season and occupation.

1st as to material—we have that from the animal, as wool, hair, fur, leather, etc., and from the vegetable we have cotton, linen,

hemps as the main varieties. For perfectly healthy people it does not make very much difference which is used, but for a consumptive, or one disposed to the disease, it does make a difference. Everything that contributes to health and prevents useless expenditure of vital force, even in a small degree, must be considered. If we can take off a draft on the bodily resources of only one per cent. by any means we ought to do it. The slight advantage gained may make a great difference in the progress towards health. St. Paul recognized this principle when he said "let us lay aside every sin which does so easily beset us in order that we may run with patience the race set before us."

It is recognized in business, in mechanics, in the sporting world, wherever success is to be achieved. All friction that can be avoided in machinery renders its work more effective.

What owner of a racer does not know he reduces his chances of winning a prize if he overloads his horse? With the consumptive the chances are against him. He must throw off every unnecessary and useless burden that he may increase his chances of regaining health.

With these thoughts in view, of what material should clothing be made for the class of patients under consideration in these papers?

My own opinion is that, all things considered, soft wool is best, and these are my reasons.

1st. Woollen allows of a more perfect interchange of the air next the body and the outside air, than any other material we have, and that is important, for the air in our garments and under them is being constantly polluted by the exhalations of the body, and it is necessary that it be carried away freely. We are apt to think that our clothing is intended, and actually does keep the outside air away from us, and it does prevent a too rapid exchange, but still the change does go on and ought to go on constantly. None of us could endure for any length of time an air-tight garment. All clothing should permit the warm air next the body, loaded with vapor and animal matter thrown off from the skin, to pass off and fresh air to take its place. Woollen garments do that more perfectly than either cotton, linen, silk, or buckskin, or chamois.

Pettenkeffer, says: "If our clothing kept us warm in proportion to its power of excluding the air from our body, kid would keep us 100 times as warm as flannel, for it allows 100 times less air to pass through it in a given time, and yet every one knows by experience that it is not so, but the very reverse. Of course the external air as it passes out becomes heated by our clothing which are warm, so we never feel it except in a wind, when the interchange may be too rapid for comfort or health. Another reason for preferring wool is that its fibres are very elastic and do not mat down as cotton or linen fibres do, and thus diminish the power of the garments to hold a large quantity of air in the meshes and spaces between and at the throat. Wool, even if wet, is still almost as elastic as when dry and holds almost as much air. Linen and cotton mat down and exclude the air. This explains why if we become wet in woollen clothes we do not become so chilled as in cotton or linen ones. Any one may observe this for himself by bathing in the ocean or other waters in a woollen bathing suit and then in a cotton one. The difference in their power to retain heat is best observed after coming out of the water and standing for a while exposed to the air.

Again the hygroscopic properties of our clothing are an important factors in maintaining health. By hygroscopic properties I mean the avidity with which it takes up and holds water. The body is constantly giving off water by insensible perspiration. Woollen takes it up more slowly and holds it longer than either cotton, wool or silk. Linen takes it up rapidly and passes it off rapidly. This is one reason why it is so cool and comfortable in very hot weather. Woollen holds much more of it than cotton or linen, and, as I said before, without losing its elasticity and its power to hold a large quantity of air. For this reason it is better for the consumptive than the other articles.

The fibres of fine wool are softer and produce a more agreeable feeling on the skin of invalids, except in a few cases, than other material, and this effect must not be overlooked.

It is very true that some persons with strong will power can go thinly clad, even in the winter season, in cotton or linen garments and do very well, but it will not, in climates that are change-

able or cold, be wise for the invalid to run this risk unless he has an amount of will power that is unusual.

I go so far as to advise those with consumption, or a tendency to it, to discard all but soft wool, even to the colars, the pockets in the clothes, the linings of sleeves and the common outside white shirt. Some will call this going to extremes, no doubt, but it will pay in the end.

It makes some difference how the woollen is woven. The knitted goods are preferable, and those that are too tightly woven prevent a sufficiently free change of air for comfort or health.

It is very true that recently hygienists have commenced making goods from cotton which are very much better than those formerly made, and which come near to wool in the properties most desirable, but as yet they are not easily obtained, and until they are woollen clothing must be recommended.

The question as to how warmly the consumptive should dress is an important one. Shall he dress so warmly that the heat-producing powers of the body are reduced to the lowest condition? By no means. He should be reasonable in this respect and cultivate the heat-producing powers of the body to as high a degree of development as is consistent with his condition. He should not, however, tax them beyond the limit of reason and sense. At least the feet, legs, arms and hands should not be allowed to go cold under any circumstances.

The cutting and fitting of the clothing should be such as to give perfect comfort and freedom of motion to the body, and should not in any way interfere with the normal circulation of the blood in every part.

The corset, so generally worn by women, should be at once and forever discarded, the skirts be made short and so divided that walking is not greatly interfered with. The waist should not prevent in the slightest degree abdominal respiration, which is as natural to women as men, and which cannot take place when a corset is worn even loosely.

As clothing produces a psychical effect as well as a physical one, the wearer needs to feel that he is well and neatly dressed and does not "look like a fright." This can all be managed by studying

the subject from the stand-point of art, as well as hygiene. When this is done, we shall be able to dress healthfully as well as artistically.

The adaptation of the dress to the seasons of the year and the constant changes of temperature of the day must be wisely done, but it must be left to each individual, or, in the case of children, to those who have charge of them. It is important, however, that they make a study of the science of the subject, for there is a science of it, as well as of all subjects that relate to bodily welfare.

There are some evils connected with our dress, as that of weakening the skin by constantly keeping it in the shade, and at a summer temperature. These evils must be corrected by a wise care of the skin by the use of friction, the bath and the use of the sun and sunbaths at suitable times and under proper conditions, which will be considered in future papers.

Indirectly the bed comes under the heading of clothing, though not so considered. In it we pass at least one-third of our time, and the invalid more than this. The same rules apply to it as to other articles of dress, so far as admittance and interchange of air, hygroscopic properties and material. Further I need not consider the subject here.

PROPER EXERCISES FOR DEVELOPING MUSCLE IN FEMALES.

THERE are women who exhibit with pride, in sleeveless ball gowns, arms so very plump above the elbow and so very tapering at the wrist that they look like legs of mutton. In such arms there is no beauty save in the possessor's own fond imagination. Many very graceful women have the thinnest limbs. Visible muscularity in a woman is certainly never to be desired. It may be noticed that there is in the arm of even the plumpest women almost invariably a sinking-in midway between shoulder and elbow due to the fact that the lateral and posterior muscles of the upper arm are so

very rarely brought into use in any of the common functions of the ordinary woman's life.

TO OBTAIN THIS DEPRESSION,

which mars the unbroken curves the arm should possess, the following exercise is recommended: Stand erect, with chest well out and shoulders thrown back; bring the elbows firmly and squarely down at the sides and hold them there, never changing the position of the upper arm. While keeping this position move the forearm up and down, crooking the elbow and then straightening it again with slow, regular, forceful movements. Practice this until a slight aching of the back muscles of the arm indicates that they have been sufficiently exercised for the time being. To develop the forearm, on the other hand, practice the following movement: Extend the arms stiffly in front, then open and shut the fingers a number of times running on two rubber balls soft enough to yield to the pressure of the palm yet sufficiently hard withal to offer a certain resistance in doing so. It is this resistance to be overcome, which

CAUSES THE MUSCLES TO DEVELOP RAPIDLY.

Therefore, with the exercise just described for the upper arm, something akin to the trapeze cordage of a gymnasium is a great assistance if quick results are desired. The handles of the ropes can be firmly grasped and the forearms then moved up and down as specified. The same remark applies to the following exercise for the chest-muscles, which constitutes the only reliable and sure means of enlarging the circumference of the bust. If the resistance afforded by any sort of rope firmly attached to the wall and provided with a handle at one end can be secured then the development will be twice as rapid as if the movement were practiced without this appurtenance. Stand erect, shoulders back and chest forward. Extend the arm horizontally from the shoulder as stiff and straight as it can be held. Then, without bending the elbow in the smallest degree, bring the arm down and carry it across the body as far as it will go. Return, always without bending the elbow, to the horizontal position out from the

shoulder. Bring the arm down again, and then up, and so on a number of times in succession.

A SUPPLEMENTARY EXERCISE

to this and one which serves the end of straightening the shoulders as well as of aiding in the development of the bust and of filling out the depressions just below the collar bones, if there are such depressions, consists in standing about a foot from the wall with the back turned to it, and while the chest is held well out and the head well up extending the arms to their full length in front on a line with the shoulders, bringing the hands together, then drawing the arms slowly back, always on a level with the shoulders and held very stiff and taut until they touch the wall behind. Move the arms forward again until the hands touch, then back as before.

REGULAR AND SYSTEMATIC PRACTICE

of these two exercises, persevered in a reasonable length of time, will do more toward producing a full, round yet deep chest for a woman than all the creams and balms ever advertised for developing the figure. To pass to the lower limbs, the best exercise is in appearance an easy one, yet its whole success consists in its being properly carried out. Stand in front of a table, rest the hands lightly on it, plant the feet squarely on the floor, then raise the heels slowly, keeping the figure from swaying as much as possible while so doing, until the whole figure rests on the toes and the

LIGHT TOUCH ON THE TABLE.

Then sink on the heels again, and thus continue rising and sinking from heels to toes until a sensation of fatigue in the muscles of the calves warns you that they are being worked as effectually as they ought to be. This exercise must be done with expenditure of force if it is to do good, and swaying forward on the ball of the foot alone is of no avail. The farther one gets toward actually standing on the very tips of the toes the better and the more rapid the results.

ROUND SHOULDERS ARE FREQUENTLY

a result of leaning back customarily in straight-backed chairs without first by an unconscious, imperceptible movement, straight-

ening the shoulderblades to a corresponding flatness. It is a mistake that reasonably easier chairs, with inclined backs, warp the shoulders. If young girls, while they are growing, were allowed to lounge a little more in their sitting postures than the pedantry of the ancient order of schoolma'am allowed there would be many more erectly elastic figures among women. Warped shoulders, on the other hand, also come from sleeping on high, sloping pillows, a form of lounging, this time not to be recommended. One of the most helpful methods of straightening the shoulders and spine is, precisely, to discard all but a low bolster and to sleep as much as possible flat on the back, drawing the shoulder blades together before lying down. With regard to muscular exercises let it be said that they are always most effectual when practiced in light undress that gives free play to every motion of the figure.

A SPECIALIST PUTS

the necessary length of time at ten or twenty minutes, morning and evening. These are light exercises, causing no violent wrench to any muscle, and therefore without the danger that frequently overhangs women of delicate physique who attempt the developing to be gained by a regular course in a gymnasium. That more harm than good accrues from such vigorous exercise as the latter to the majority of women seems beyond dispute.

A CHEAP WAY TO WARM COLD FEET.—More than 25 years ago, while I was in the 35th Massachusetts Regiment, strutting around in Virginia, I was sometimes troubled with cold feet. At one time while I was stamping upon the ground in the effort to warm my extremities, a comrade in the same regiment said to me, "If your feet are cold try this." He raised his foot from the ground and struck some light blows with his hand on the upper part of his leg, just above the knee. I did the same, with both legs, and instantaneously felt a flow of warm blood coursing downward, and the feet became comfortably warm. The experiment was repeated with good effect in the comparatively warm climate of Virginia, and also with equally good results in the more rugged atmosphere of New England.—*Cor. Boston Journal.*

A FAMILY RECORD OF LONG LIFE.

It was the writer's privilege to attend a family reunion at the golden wedding of Mr. and Mrs. Edward J. Tucker, Mount Clemens, Mich., September 24, in the same house into which the bride and groom moved on September 25, 1840, and have occupied ever since. There were present at the reunion eighteen persons who were at the original wedding, including the principals and about sixty-five in all.

There were five brothers and one sister of Mrs. Tucker, the united ages of the seven aggregating 460 years 8 months, or an average of 65 8.10 years each, being seven of ten children of James and Mary Snook, John B. Snook, architect, of No. 12 Chambers street, New York City, being the oldest, having passed his seventy-fifth birthday, Thomas W. Snook, of Mount Clemens, Mich.; Mrs. Tucker, George A. Snook of San Francisco, Cal.; William S. Snook of Oakland, Cal.; Mrs. William T. Doremus, of Flatbush, L. I., and John M. Snook of Blythebourne, L. I., the youngest of the ten having passed his fifty-fourth birthday. Mrs. Mary S. Snook, the mother, died in Brooklyn in 1871, about 79½ years. There were also present at the reunion three sisters-in-law and one brother-in-law, companions of the above, whose united ages were about 258 years, or an average of 64½ years each. E. J. Tucker, with three of his brothers, who were also present, aggregated 280 years, or about 70 years each. Mr. Tucker was the oldest son of the first white child born north of Detroit, his grandfather having been stolen from Pennsylvania by the Indians when 7 years old. So the aggregate ages of the above fifteen persons who were present was about 998 years 8 months, or an average of 66.6 years each. There were also present nine or ten other relatives of Mr. Tucker whose ages would average about 64.1 years. Besides these there were present eighteen nephews and nieces, including five of their own children, whose ages would aggregate about 729 years, an average of 40.5 years. Also seventeen great nephews and nieces and grandchildren, and one adopted grandchild, whose ages would average about 14.4 years, or aggregate about 245 years. Five of the above

company were from California, five from Kings County, N. Y., and the remainder from various parts of Michigan.

JOHN M. SNOOK, ONE OF THE SEVEN.

James and Mary Snook came to this country from England, with their two eldest children, in 1817. John B. Snook is an architect of New York. His office remains where it was forty years ago, at No. 12 Chambers street. Mr. Snook is still as active as a man of 50 years in vigorous health would appear to be.

HOT MILK AND VICHY FOR LUNCHEON.

“THERE are a great many men who are overworked and underfed,” said a New York physician to a *Sun* reporter; “they think they are too busy to eat lunch at midday, and resort to stimulants as a substitute for food. It only takes a minute to step into a bar-room and take a drink. This makes them feel better for the time, but the effect soon passes away and another is taken to get rid of the empty feeling. The habit grows until it takes eight, ten or more drinks a day to keep them going. Alcoholic stimulants are the worst thing in the world for an empty stomach, finally causing catarrh of the stomach, interfering with the secretions of the liver, and destroying the ability to assimilate food. When a man comes to me in this condition the first thing I do is to cut off his whiskey or whatever form of stimulant he is addicted to and substitute food for it. I can't substitute solid food, because his stomach won't retain it. I must get him to take something that it will. This is where hot milk and vichy comes in. Cold milk is too harsh. It shocks his weakened stomach. Hence I give it to him hot. Vichy lightens and livens it; makes it more easily digested. I tell him to take a glass, two-thirds milk, one-third vichy, twice a day; to order it over a bar, anywhere he can get it, and to let whiskey and all stimulants severely alone. If he obeys the order I will cure him and save his life. A good many men among my own patients, fast growing prematurely old and bringing upon themselves a multitude of ills by the steady and excessive use of alcoholic stimulants instead of the nutritious food which they should take, have

been reclaimed by the use of hot milk and vichy. If you find you are losing your appetite for food and correspondingly gaining that for alcoholic stimulants, try it. It will do you good."

A DIET FOR DIABETICS.

THE following diet for persons suffering from diabetes has been arranged by Professor Braurford Lewis, lecturer on Genito-Urinary Diseases at the Missouri Medical College, St. Louis. While we do not wholly endorse the diet as given, it is published as a matter of interest to persons afflicted with this most troublesome of complaints:

ALLOWED.

All kinds of meats (except liver). Poultry, all kinds of game. All kinds of fish, fresh or salt, sardines. Oysters. Eggs in every style (without addition of flour, starch, or sugar.) Fats and fatty meats. Butter, cheese. Soup (without flour or the prohibited vegetables.) Celery, cabbage, cauliflower, string-beans, asparagus, lettuce, spinach, mushrooms, radishes, cucumbers (green or pickled), young onions, water cresses, slaw, olives, tomatoes. Graham bread, rye bread. Occasionally stale light (white) bread. Acid fruits, such as oranges, lemons, apples, plums, cranberries, currants, cherries strawberries, gooseberries (sweetened, not with sugar, but with saccharine and sod. bicarb). Gelatine (without sugar.) Almonds, walnuts, Brazil nuts, hazel nuts, filberts, pecans, butternuts, cocoanuts. Salt, vinegar, pepper. Drinks: Coffee, tea (without sugar), skim-milk, cream, soda-water, (without syrup), mineral waters of all kinds, but especially vichy. Claret, Rhine wine.

PROHIBITED.

Liver. Sugar in any form. Starch in any form. Sauces containing flour, sugar or starch. Cakes of all kinds. All cereals, such as cracked wheat, oatmeal, mush, cerealine, etc. Potatoes (either Irish or sweet), corn, carrots, turnips, hominy, parsnips, beans, peas, beets, rice. White bread, corn bread, white biscuits. Pears, peaches, grapes. Sweet jellies. Chestnuts. Malt liquors, beer, ale.

OUR RULES FOR GOOD HEALTH.

1. Be regular with you habits.
2. If possible go to bed at the same hour every night.
3. Rise in the morning soon after you are awake.
4. A sponge bath of cold or tepid water should be followed by friction with towel or hand.
5. Eat plain food.
6. Begin your morning meal with fruit.
7. Don't go to work immediately after eating.
8. Be moderate in the use of liquids at all seasons.
9. It is safer to filter and boil drinking water.
10. Exercise in open air whenever the weather permits.
11. In malarious districts do your walking in the middle of the day.
12. Keep the feet comfortable and well protected.
13. Wear woolen clothing the year round.
14. See that your sleeping rooms and living rooms are well ventilated, and that sewer gas does not enter them.
15. Brush your teeth at least twice a day, night and morning.
16. Don't worry, it interferes with the healthful action of the stomach.
17. You must have interesting occupation in vigorous old age. Continue to keep the brain active. Rest means rust.

KEEP YOUR MOUTH SHUT.—“Have you ever noticed,” said an observant of human nature, “how many of the people you meet have the habit of keeping their lips parted a little? Just observe people’s mouths in your walks about the city, and you will be surprised at the truth of what I am telling you. Or perhaps you will not be surprised now that I have put you on your guard, but you will find the number is exceedingly large. I venture to say that more than three-quarters of the men and women to be met in the streets of this city will be found to have their mouths habitually partly open. To some extent this is due to the catarrh, which is almost a national disease, and which renders nose-breathing in at least some cases not an easy thing. Then I think that it is largely the result of bad habits. The habit of opening the lips a little is easily acquired, and, like all habits, not easily broken. Then, again, there are some people who have the habit of humming to themselves as they walk, which naturally tends to throw the mouth open. Of course, the general habit of which I am speaking is an extremely bad one. The nose is the instrument

given us to breathe with, and only when the air passes through the nose and is strained there, especially in cold weather, is it in fit condition to enter the lungs. Much more attention should be given to the formation of the habit of nose-breathing than is generally the case. This is a fact that ought to be forcibly impressed on the mind of every parent and every teacher. After violent exercise it is natural and inevitable to breathe through the mouth, just as the dog throws open his jaws and hangs out his tongue when exhausted by some special effort.

EDITOR'S STUDY.

OLD AGE NOT A MATTER OF YEARS.—Every citizen of the world, growing wiser each year, believes that the flight of time should have no influence upon the heart, should not destroy vigor of health and freshness of feeling, and should not mark a man as "old" simply by a standard of years. In spite of the rush and excitement caused by modern competition, there are many remarkable examples of active longevity. Old men of 84 years are seen taking tours in Europe. One old gentleman over 80 has just started for Michigan to enjoy the good skating of that region. Five people over 70 were found in a party of twenty-two upon an excursion to the Yosemite. Old people, like Mr. Gladstone, Dr. Holmes, and Mr. Whittier and others both in this country and Europe are increasing the tendency among people of to-day to believe that old age is not a matter of years. Our sanitary improvements and the dissemination of ideas of hygiene have not only added to the average length of life, but have made those added years a period of enjoyment and of value to the community. According to the ideas exemplified by Mr. Gladstone it is possible to measure quantity of work done equally with length of days, and to make old age count for more value than mere statistics for the census.—*Boston Journal.*

CARBONATE OF LIME FOR TUMORS.—An English medical journal is credited with the statement of a physician's twenty years' experience in the use of carbonate of lime, in the form of calcined oyster shells, as a means of arresting the growth of cancerous tumors—

the result attained having been extremely satisfactory. Reference is made to several cases in which a persevering use of calcined shell powder arrested the growth and pain in tumors undoubtedly of a cancerous character, and the persistent trial of the remedy is urged in all cases where the nature of the affection is easily recognized. It is affirmed that it can do no possible harm, and an advantage of the treatment is that it may be readily prepared at home by baking oyster shells in an oven and then scraping off the calcined white lining of the concave shell; the substance thus obtained is to be reduced to powder, and as much as will lie on a silver quarter taken once or twice a day in a little warm water or tea.

NIGHT BRAIN WORK INJURIOUS.—To the imaginative young writer there is a fascination about the quietude of uninterrupted night work until much of its mischief has been done. If he has a fixed daily occupation, or is popular among his friends, the night offers the best chance for continued application by its quietness and peace. This very cessation of life's turmoil and the resulting feeling of ease should be accepted as nature's preparation for rest. Unless it is imperative, night work should be avoided. It must be imperative to the staff of morning papers, and the question thus assumes importance—of accomplishing the work with the least possible expenditure of vital force. While by working during the day persistently and deliberately an enormous amount of copy can be thrown off, that produced after midnight absorbs the best part of the writer's vitality. When he should be in the prime of his faculties he is nervous, suffers from insomnia, and his overtaxed nervous system cannot rest, even in artificial slumber. The natural temptation is to apply the whip of stimulation to the jaded brain; but this is dangerous, and at the best only a transient and uncertain remedy. The imagination answers fitfully to this kind of forcing, the next day's critical judgment of the results almost certainly will be unfavorable, and the mental excitement thus induced will probably be extravagant. Try to sustain the brain under such stress rather than to excite it.—*Juliet Corson.*

DRUG HABITS.—It seems strange that so many pernicious habits, injurious and death-inviting, are so commonly formed, habits which

are denounced both by print and practitioner, yet followed with a persistency that is alarming. There is the old opium and morphine habit, which has become thoroughly established; and now comes to the front another and new one, viz., the quinine habit. Few realize to what an extent this is indulged in, especially by young ladies. It is first taken as a tonic, a cure for malaria, a prevention of disease, and shortly the little two-grain pellet has a charm which many a young lady finally becomes unable to resist. Though the effect may be slower than the other more deadly drugs, yet the result is just as surely fatal. Instead of being a preventive of disease it weakens and throws down all barriers that nature has thrown around us, and makes us ready and easy victims to disease in all its varied forms, especially to those which come in the form of colds.

SWIMMING A GOOD EXERCISE.—Few people realize the importance of knowing how to swim. Swimming is taught to the cadets at the Annapolis Naval Academy, but not to the West Pointers, and the statistics of the late civil war show how important it is that soldiers should know how to swim. During the war the number of men killed in action was 67,058 while the number drowned was 106 officers and 4,838 men, the majority being drowned under such circumstances that a few strokes would have been sufficient to save life. Some object to swimming on the ground that it is productive of colds, that it may cause heart failure, and that when indulged in at the seashore there is danger from sharks. An expert claims that there is little danger of taking cold. Of course there are many weak people whose lungs and heart are in such a condition that they should not venture to swim, but at the same time the neglect to learn to swim in early childhood—the neglect of this eminently hygienic exercise—is probably largely responsible for many flabby hearts and weak lungs. Swimming is a tonic and bracing exercise. It assists in the development of the muscular system, and exerts a favorable influence on the bodily functions, such as digestion, nutrition, respiration, circulation and innervation. It is excellent for getting the body in what sporting men call “condition.” Aside from the physical advantages swimming gives moral courage.—*Forest, Stream and Farm.*

SALT AND VINEGAR FOR DOG BITES.—I have been bitten by dogs repeatedly, once severely. A pet dog of a neighbor's was very sick, and I was attempting to relieve it. It bit me in the left thumb, just below the nail. That member became black as far down as the wrist. It remained so until the nail came off. The owner talked of hydrophobia and said that the dog had not tasted water for two weeks. Had I been afraid I should no doubt have taken nervous fits and died. The verdict would have been hydrophobia. But I simply applied a solution of salt and vinegar—a little more vinegar than salt—washed the wound with it, tied a clean rag around the thumb, keeping it saturated well with the solution, and moved the rag so that a fresh part covered the wound at intervals. This remedy was once applied to my wrist by a colored woman in the south for a snake bite. My arm was then black, hard and painful. The remedy acted like a charm. In two hours the discoloration had disappeared, and with it the pain, and only the needle mark where the fang had entered was visible.—*Cor. New York Tribune.*

A BUNCH OF GRAPES INSTEAD OF AN EAR.—A singular birthmark is to be seen on a negro woman employed near Athens, Ala., on the Darrington plantation. Her left ear is shaped like a bunch of grapes, and pendant from the side of her head by a filament of flesh, presenting a most remarkable appearance. Her hearing on that side is of course very defective, but otherwise she suffers no inconvenience from her peculiar mark, which, as negroes always do, she attributes to a witch's malice. When in health the oblong balls of flesh which represent the grapes are firm and plump, but are shriveled by sickness.

OIL OF WINTERGREEN FOR RHEUMATISM.—Dr. J. D. Staple writes to the *Lancet*, indorsing the external application of oil of wintergreen as a remedy in the treatment of sub-acute and chronic rheumatism. In forty cases of sub-acute rheumatism, a liniment composed of equal parts of olive oil and oil of wintergreen was applied to the joints, which were afterward wrapped in cotton wool, and lightly bandaged. In each case the pain ceased from five to six hours after the application. It is in the more chronic cases that the oil of wintergreen is most useful. Indeed, in more than one

hundred cases, there were only two who did not experience any relief from the liniment. In this last class of cases it is most essential that the liniment should be thoroughly rubbed into the affected parts.

THE SEAT OF CHARACTER AND INTELLECT.—Modern physiologists regard the frontal part of the brain as the seat of character and intellect. After the removal of this part in dogs and monkeys no paralysis of any muscles or loss of sensibility occurs, but singular changes in the behavior, emotions and character of the animals have been observed. They become livelier, restless, impatient, irritable, quarrelsome and violent. Their movements seem purposeless, and their attention to what is going on around them and their intelligence are diminished. These observations have been confirmed in the case of human beings.

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY HELEN FLETCHER.)

ABOLISH THE SEWING FETICH.—A fine state of affairs it would be if every man when he wanted a mutton chop went out and killed and dressed his own sheep, and every man when he wanted a pair of boots made them. The world is too busy now-a-days for the individual to stand by himself and supply his own needs. For the housewife to spare her husband's income by patient stitchery is sweet labor we shall be long in abolishing, but for the army of women who work at bread-winning occupations all day to sit up half the night to make their clothes is ruinous economy. The man who earns \$5 a week has more common sense. He doesn't put his evenings into the sewing of pantaloon seams. The woman's business is to sleep and get strength to make the especial work she has chosen more valuable. It will cost her more than money to burn the candle at both ends. We need to get rid of the sewing fetich, the idea that there is an inherent, peculiar virtue in a woman's setting stitches. In point of fact it's all a matter of convenience, and civilization will not have done the fair thing by one whole sex until it is as easy for a woman to walk into a dry goods store and buy at a reasonable price a tasteful dress as it is now for

a man to supply himself with a good business suit ready made.—*New York Commercial Advertiser.*

THE WORK OF A NURSE.—The regulation charge of first-class professional nurses in New York is \$21 a week, and they are in demand at that price. The engagement of a thoroughly trained nurse is considered by physicians as half the battle against disease won. The high wages earned has brought into the profession large numbers of women who have been well bred and delicately reared, but who have been unfortunate in losing their means of support. They are as particular in choosing their places of service as patients are in choosing them. In talking with such a nurse she said to me, "I always want to know that I am going where I will be well treated—that is, not as a servant, but as the peer of any member of the household. I feel that I occupy a confidential relation to the household, not second even to that of the family physician. I do not consider any labor that I may be called upon in my capacity as nurse to perform as menial. It is the labor of necessity which many perform through love, but which I undertake as a professional duty."

THE VIRTUES OF A TURKISH BATH BRUSH.—Everybody can't have a Pompeian bathroom, nor an accomplished maid, nor a perfumed bag containing the most exquisite preparation of soap to use as a wash rag, but everybody can have a Turkish bath brush, and that is more important than either. The face itself is generally greatly helped by a very gentle brushing, using at the same time good and pure soap. The face ought to be washed with it at least several times a week. There are skins so thin—not necessarily good—that they cannot stand brushing, but don't presume yours is one of that kind till you know it. The chances are that it will help it 50 per cent. All those ugly roughnesses you sometimes see on girls' arms and shoulders, when they are indiscreet enough to show them under such circumstances, will almost invariably disappear by brushing. The amount and force of it should be regulated by each person according to her own experience. One thing in the massaging way you can do for yourself, and it is extremely valuable. You can massage your face. Some knowledge of the usual massage movement is a help. The point is to

very gently move all the flesh on the bones, and gently knead every particle of it. When you are through you feel as if you had a new face, and the effort in keeping the lines and fallings-in from being settled and fixed is great. You should rub your face outward from the nose and upward from the chin in washing, in oiling, in touching it at all, because the tendency of the flesh is to fall in and downward. Two minutes a day will suffice.—*Chicago Herald.*

THE SPOILED GIRL.—I never see a petted, pampered girl, who is yielded to in every whim by servants and parents, that I do not sigh with pity for the man who will some day be her husband. It is the worshipped daughter, who has been taught that her whims and wishes are supreme in a household, who makes marriage a failure all her life. She has had her way in things great and small; and when she desired dresses, pleasures or journeys which were beyond the family purse, she carried the day with tears or sulks, or posing as a martyr. The parents sacrificed and suffered for her sake, hoping finally to see her well married, writes Ella Wheeler Wilcox. They carefully hide her faults from her suitors who seek her hand, and she is ever ready with smiles and allurements to win the hearts of men; and the average man is as blind to the faults of a pretty girl as a newly hatched bird is blind to the worms upon the trees about him. He thinks her little pettish ways are mere girlish moods; but when she becomes his wife and reveals her selfish and cruel nature he is grieved and hurt to think fate has been so unkind to him.

THE NEWEST "FAD" FOR THE LENGTHENING of days is the luke-warm bath. The human body absorbs a considerable quantity of water in a luke-warm bath, which causes a softening of the tissues. Falconet demonstrated by the scales that a person remaining in the luke-warm bath for an hour absorbs through the skin more than three pounds of water. The bath has a tendency to decrease the number of pulsations and respirations, and consequently arrest the rapidity of the consumption of vitality.

MISS KATE FIELD, who has been saying some pretty sharp things to her sex and about her sex, thinks that the Women's

Christian Temperance Union might well expend some of its surplus energy in reforming the women of America who spend \$62,000,000 a year for cosmetics, most of which are made of zinc oxide, calomel and similar poisons. "How," she asks, "can women vain enough to paint and dye their hair bring forth children stalwart enough to resist temptations that lead to all manner of vice, including drunkenness."

A FRAGILE CREATURE.—A cynical man, withal a man of wonderful resources and quick mind, lives on one of the avenues on the south side. He was in his study a few nights ago when a young man came in and began questioning him about his (the young man's) propriety of marrying. The young man foolishly raved over his sweetheart and called her angelic and so on. He was afraid she was too fragile for this world. The old doctor grunted. "Fragile, eh?" he asked. "How fragile? Ever test her fragility? Let me give you some figures about her, and womankind in general, showing how fragile they are. Let us suppose that this piece of perfection is in moderately good health. She will live to be, say, sixty years old. Women don't like to die any more than men do—not so much—for women never grow old, you know. Listen to me. She will eat one pound of beef, mutton or some other flesh every day. That is 365 pounds of meat in a year. In sixty year's its 21,900 pounds. How's that for fragile? She will eat as much bread and as much vegetables per diem, and there you have in sixty years 43,800 pounds of bread and meat. If she is not too angelic she will drink daily no less than two quarts of coffee, tea, wine or beer. And by the time she is ready to have a monument she will have consumed 175 hogsheads of liquids. Fragile? Now, young man, the figures do not include the forty or fifty lambs she will worry down with mint sauce. It does not take into consideration the 2,000 spring chickens, the 500 pounds of butter, the 50,000 eggs and the four hogsheads of sugar she will consume in sixty years. It doesn't take into consideration her ice cream, her oysters, her clams and such. All this means about forty-five tons. Fragile? Think of your affinity in connection with these figures, and then rave over her being fragile. Young man, you are a fool. Boof!"—*Chicago Tribune.*

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESSLER.)

TEACH THE CHILDREN TO GARGLE.—Children are mimics and the mother who has taken singing lessons and learned to curve the tongue down, thus exposing the throat to its fullest extent, would do well to make a game with her children, encouraging them to such imitations. If she will open her mouth and make the sound a-a-h-, letting the tongue form a curve in the lower part of the mouth, her baby will copy it, and the chances for required applications to the throat in cases of diphtheria and other maladies will be greater.

Apropos of this another nursery game which is valuable in its far reaching possibilities is the putting on to the child a rubber bib and teaching it to gargle. Have some sugar and water and let the little one in its imitative performances even spill a great deal and swallow some. If the result is accomplished and the child learns to gargle there will be gained a better opportunity for curative measures in case of simple or malignant throat maladies.

I have in my care several families of children with whom this method has been pursued, and threatened disease is often aborted by the wise administration of gargles by the nurse or mother.—
Julia Holmes Smith.

CATER TO YOUR BOY.—We mean your boy—the little fellow you left at home this morning when you started for the store or office. Don't forget he has wants as real and tangible to him as yours are to you. Remember he is no more a born saint than you were. And if you just reflect a little you will be ashamed to think how far from it you were. Don't forget him as soon as his "good-by, papa," fades away behind you. Didn't he ask you for something—a jackknife, or a hammer, or a new slate, or some pencils, or something or other? If you love your boy and wish to show him that you do you might better forget a business appointment down town than forget his request. If he asks you for something your better judgment says he should not have don't be content with simply ignoring the boy's wish, but take the time and trouble to ex-

plain your reasons. Boys, even pretty young ones, are quicker than you may think to see a point. Always give a reason for refusal of his request, even if it is the one you too often give—that you can't afford it. And be careful how you give that reason. If he has lost or broken his jackknife, and asks you for a new one don't scold him. Albeit you may give him a little lesson in carefulness, but don't tell him you can't afford to give him ten cents for a new one, and then before you leave the house pull out your cigar case and light a ten cent cigar. The boy will be drawing invidious distinctions before you know it.—*Business Chronicle*.

INDIGESTION AMONG CHILDREN can be cured by carefully watching them and vigilantly preaching the wholesome doctrine of mastication. Teach the child that every morsel he swallows without chewing it thoroughly is so much poison to his health. They are tenacious of life, and what you say they will believe without questioning.

KNAPSACKS FOR SCHOOL GIRLS.—The tendency of young girls carrying their school books under their arms, or in bags or portfolios hung from the arm, is said to be to distort the figure. German doctors are exhorting parents to provide young girls between the ages of 11 and 14 with knapsacks for carrying their school books. In many parts of Germany this equipment is already in use, and to the unaccustomed eye of the stranger nothing is more comical than suddenly to come upon a crowd of little girls trooping out of school, each provided with a knapsack for the march.

A BLACKBOARD.—Our little ones have had such a time playing school with our blackboard. We made it ourselves, too. It is a pine board two feet and six inches long and one foot and seven inches wide, made very smooth and painted several coats of black, a cleat across the bottom to catch the dust and hold the crayon and erasers. The latter are made by tacking some cotton flannel over some blocks.—*Detroit Free Press*.

A SHOE, OR EVEN STOCKING, that is too short, may so seriously deform a child's foot as to cause trouble through life. Indeed, foot gear of all sorts should have, above everything, length, breadth

and thickness. The shoe ought to be at least half an inch longer than the foot, with a double sole broad enough to save the upper from touching the ground. Given these essentials, the closer it fits to the foot the better.

WHEN TO BEGIN.—It is never too early to begin to be polite. I know a little girl, who is only twelve years old now, who for at least five years has written a letter acknowledging any courtesy received that she could not acknowledge by voice. She always answers all letters within a reasonable time; every little gift, no matter how small, is acknowledged at once, and this has become such a habit that if anything prevents her writing it distresses her greatly. Being polite is as much a habit as is cleaning her nails or brushing her teeth. No one will ever hear that little girl, when she grows to be a woman, say that she had no time to write a letter if it is impolite to neglect writing it. No one will ever hear her say that she has no time to return a call or acknowledge any social attention. She will make time, for she will feel that it is as much a part of her duty to acknowledge and return social attentions as it is to keep her house clean, or care for her children, or do any of the things that our mothers have to do.—[*Ex.*

A SAFE WAY TO BATHE A DELICATE BABY.—Some one suggests that a very good way to give a bath to a delicate infant is to lay a small blanket in the bottom of the bath, and wrap it around the child before lifting him out of the warm water. In this way he can feel no chill whatever from the outside air. The nurse should have on a large toweling apron in which to wrap the baby, wet blanket and all. The head can then be dried and the upper extremities, keeping him well wrapped up all the time. Put on a warm shirt, slip off the wet apron and wrap the little one in a warm, big Turkish towel and dry and rub him thoroughly.

SIMPLICITY OF CHILDHOOD.—One difference between child and man is that a man has to learn to be exact, while a child has to learn to be inexact. The whole period between infancy and age is a mixed retrogression from natural exactness and a progression toward an artificial exactness. A child's first impulse is to spell phonetically. In course of time his education leads him to re-

gard phonetic spelling as ludicrous and absurd. In middle life he is so hide-bound by the conventional (English) orthography that it is only with difficulty that he can analyze a word into its phonetic elements—which analysis he made easily and naturally in childhood. It is so in the mortal life. We start with a certain straightforwardness, which the world's attrition wears into lopsidedness. We have, indeed, to be directly educated against the evils of an indirect education. Being exact is one of the ways of being child-like. It is worth while for the average adult to long to be a child again, thus far at least.

HOW TO AVOID CHOKING.—The substance which causes choking may either be at the top of the throat, the entrance to the gullet, or lower down. If at the upper part of the throat prompt action will often remove it, either by thrusting the finger and thumb into the mouth and pulling the obstruction away, or, if it cannot be reached so as to pull it away, a piece of whalebone, a quill, or even a penholder—anything at hand—should be seized and pushed down as a probang, so as to force the substance down the gullet. Tickling the back of the mouth with a feather, so as to produce sudden retching, will some times dislodge it, or a sudden splashing of cold water in the face, which causes involuntary gasping. Should the patient become insensible before relief can be afforded, it must not be assumed for certain that death has taken place, and such remedies as dashing cold water in the face and on the chest and applying ammonia to the nostrils should be continued until medical aid arrives.

PUBLISHERS' DEPARTMENT.

THE SUBSCRIPTION PRICE OF THE HERALD OF HEALTH continues at ONE DOLLAR per annum, cheap enough for the vast amount of practical Hygienic information contained in its pages. We offer liberal terms to agents. Anyone can act as an agent, and we will send inducements upon application by postal. Our friends can help us extend the HERALD's field of influence, by recommending their acquaintances to subscribe. We will send sample copies to any address requested.

OUR UNPRECEDENTED PREMIUM LIST.—We call especial attention to our unprecedented premium list for the ensuing year. It will be found on another page of this issue. The HERALD OF HEALTH is fully worth One Dollar a year, and the premium offer is not made with any intention of pushing this magazine. The HERALD keeps and increases its circulation solely upon its own merits. But we have the opportunity of assisting our friends to procure good literature at reduced prices, and we are desirous that they should avail themselves of the chance. See list elsewhere.

HEALTH INVENTIONS AND APPLIANCES.

ANOTHER SO-CALLED CANCER CURE.—Count Mattei had better look sharp in selling off his electrical waters and tinctures. Inoculation is now the order of the day, and a Vienna physician has begun to inoculate for cancer. This is Professor von Moseitig, who has spent the last ten years in the study of the fell disease. His injection is described as a solution of "methyl violet," which will probably convey to the popular mind the romantic idea of an extract of violets. With this fragrant-sounding compound the Professor impregnates the corrupted tissues, and they, close tumors as well as open, "constantly shrivel up and disappear." May it be so! Medical discoveries are in the air just now, but they also have a way of "shrivelling up," if not of "disappearing," on riper investigation.

HYPNOTIC HUMBUG.—The experiments of Dr. Charcot in Paris have been cited to prove the magnet's mesmeric value. This celebrated specialist did obtain some striking results with a sensitive hypnotic subject under the influence of a magnet. But, according to the *American Analyst*, Dr. Charcot not long after repeated the same experiments with the same subject, using, however, a dummy magnet made of painted wood instead of the real one he had used before. He obtained the same hypnotic results, showing very clearly and positively that magnetism had "nothing to do with the case."

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

USE OF NARCOTICS AMONG WOMEN.—*F. D. M.*—The use of narcotics is on the increase among women. This is the way the list runs: Alcohol heads the procession, then follow chloral, chlorodyne, ether, chloroform, sal volatile and eau de cologne. How much wiser it would be to encourage sleep by taking active exercise when one is in condition to do it, and thus get healthily tired like a child. Women should avoid sitting, reading and sewing in the house until too exhausted, mentally and physically, to sleep without some narcotic to quiet the strained nerves.

RHEUMATISM AND THE HEART.—*Sufferer.*—Rheumatism does not affect the bones themselves, but the fibrous tissue that envelopes the joints, the gelatinous tissue that grows in the joints and sockets and ensures easy, noiseless movements. Now the pericardium, or the bag which encloses the heart, and also the lining membrane of the heart are nearly identical in nature and composition with this joint tissue, and there is a very strong bond of sympathy between them. For this reason rheumatism is apt to run into heart disease, and especially is it liable to leave the patient with the foundations of valvular heart disease well laid.

TOO MUCH SHADE BAD.—Houses in places otherwise unexceptionable are often so closely overhung with trees as to be in a state of humidity by the prevention of a free circulation of air and a free admission of the sun's rays. Trees growing against the walls of houses and shrubs in confined places near dwellings are injurious also as favoring humidity. At the proper distance, on the other hand, trees are favorable to health.

OLDEST PEOPLE ALIVE.—Recently the Salinas (Cal.) *Index* gave an account of the life of old Gabriel, who was reputed to be 151 years old when he died the 16th of March last. "Old Gabriel's son, Zachariah, by his third wife, lived 114 years. Then there was Casiano, who died a few years ago aged 136. Another Indian

named Lauriana died at the county hospital some four years ago at the age of 110. These are all well-authenticated cases. Now comes an old native known as Mrs. Olaria, who claims that she was 12 years of age at the time of the building of the Carmel Mission in 1772, which would make her 130 years old at the present time. The ancient lady lives with relatives over on the Carmel, and has retained her mental strength and physical vigor in a remarkable degree."

INFECTION IN FEATHER DUSTERS.—A circular of information has been prepared by Dr. Benjamin Lee, secretary of the State Board of Health of Pennsylvania, on the precautions to be taken by the patient and others against consumption. In addition to the usual counsel given in such circulars, the feather duster finds prominent mention, as follows: The duster, and especially that potent distributor of the germ, the feather duster, should never be used in the room habitually occupied by a consumptive. The floor, wood-work and furniture should be wiped with a damp cloth. The patient's clothing should be kept by itself, and thoroughly boiled when washed. It need hardly be said that the room should be ventilated as thoroughly as is consistent with the maintenance of a proper temperature. The feather duster is probably the least sanitary of all the so-called cleansing utensils to be found in our home. In the sick room it is little better than an abomination.

THE TEETH. USE OF QUININE, &c.—*J. W.*, Independence, Missouri. In reply to questions as to best kind of bread, the use of eggs, etc., for people with weak digestion, we would advise you to procure a copy of Dr. Holbrook's "Eating for Strength." That work treats at length upon the points raised, far more fully and satisfactorily than we can in our limited space. Among good rules for the preservation of the teeth, are the following: Rinse the mouth out after each meal with tepid water; brush the teeth thoroughly night and morning with a brush that is neither too hard nor too soft, with what the druggists call camphorated chalk; if the gums are tender, rinse the mouth three or four times daily with tepid water, to which a few drops of tincture of myrrh have been added. Those who smoke or chew should rinse their mouths much oftener, always remove particles of food from between the

teeth immediately after eating. As to quinine, the less you use of it or any other drug the better. Hygienic living and treatment will in time render its use unnecessary.

HOW TO REDUCE FAT.—*Mrs. H. S.* The most important methods of reducing fat are suitable diet, abundant exercise and bathing. Avoid all ales, beer and wines; use butter and milk only in moderation. A diet composed of bread, fruit and vegetables mainly is best. All the exercise a person can endure out of doors should be taken, commencing gradually and increasing little by little. A cold bath every morning is essential, and this should be accompanied by hard rubbing and kneading of the flesh, the amount of sleep should be as small as possible. A hard bed should be slept upon, as little clothing should be worn as consistent with comfort. There are many methods of reducing fat, but the above embrace the leading features. Bear in mind that fat is one thing, too much flesh another. One can stand a good deal of the latter, but the former, if excessive, becomes a burden.

SEND US DETAILS.—*Subscriber*, Hayneville. Send us particulars as to age and habits and we will reply to questions concerning swollen joints and receding gums.

THE HERALD OF HEALTH.

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THE
HERALD OF HEALTH.

Forty-first Year.

APRIL, 1891.

No. 4.

HOW TO SAFELY ADOPT A VEGETARIAN SYSTEM.

A PAPER has been prepared by the *Dietetic Reformer* for the guidance of beginners who desire to try vegetarian practice, and who sometimes make rash experiments, choose unsuitable food, fail in health, and then relinquish the principles. "The fact that large numbers of people—*e.g.*, the peasantry of all nations—abstain wholly or partially from flesh food, either from necessity or choice, and maintain their full vigor, affords, we are told, practical proof that flesh meat is unnecessary." But in the case of persons trained to flesh diet some caution should be used in making the change. All changes, good and bad alike, involve inconvenience at first. Therefore—

1. KNOW WHAT YOU ARE ABOUT.—Let your practice be based on rules which are intelligent, rather than narrow or rigid. Remember that, both in kind and quantity, food should be suited to different seasons, employments, and periods of life, and that summer and winter, youth and age, mental and manual labor, have their respective and varied demands. Read while you practice; make physiology and dietetics subjects of study; and pay some attention to the experience of others.

2. TAKE A SUFFICIENT BREAKFAST.—Those especially who are uncertain of having a good mid-day meal, and who may have to wait until the end of the day with but a lunch between, should take care to have something substantial at the beginning. Don't

attempt serious or prolonged work after the conventional "white bread and butter and cup of coffee" breakfast. To persons engaged in business this is important.

3. USE VARIETY.—The kingdom of nature offers the most bountiful abundance, so that none need be confined chiefly to one article or to one dish. Besides tried dishes, have something new on your table frequently, especially fruits, home or imported, as they come in season; so much the sweeter if produced by your own labor.

4. CHOOSE FOODS WHICH COMPEL MASTICATION.—Great labor is often thrown upon the digestive organs (and this implies worse nutrition) by those who habitually swallow soft foods insufficiently salivated and imperfectly masticated. Hence porridges, soups, puddings, and foods of this class should be used sparingly, or bread, or other food which has a texture, ought to be eaten along with them to insure mastication.

5. DRINK LITTLE.—Prefer food in a solid, not in a liquid form. If fruits be used plentifully, condiments, hot foods, and stimulants avoided, and frequent bathing practised, little drink during meals will be required. Much tea, coffee, or liquid of any kind taken at meals hinders mastication, and certainly retards digestion.

6. PREFER NATURAL TO MANUFACTURED FOODS, and their domestic to commercial manipulation. For instance, the human body requires sugar, and the use of natural sugar—*e.g.*, that contained in all well-ripened fruits and grains—is always unexceptionable, while the free use in solids and liquids of the sugar extracted by manufacture is a frequent cause of flatulence and of injury to the digestive processes. So bread made from the entire wheat ground together at home is vastly to be preferred to the extract generally sold as "flour" by millers, and made into "bread" by the bakers.

7. AVOID EXCESS.—Eschew many dishes. Prefer simple to elaborate, costly, or highly-seasoned preparations, which tempt the palate and oppress the digestive organs. Most people eat too much; a smaller quantity of food, well masticated, will nourish and sustain the system best.

8. **EAT SELDOM.**—"Little and often" is an unwise maxim for any healthy person. Find if you wish sound sleep, and to rise with a feeling of restedness and lightness in the morning, and with an appetite for breakfast, avoid suppers. To give time for complete digestion, meals should be taken five or six hours apart, and the last meal at least three or four hours before retiring for the night.
9. **LET YOUR FOOD BE ATTRACTIVELY PREPARED.**—See that it be both right in kind and agreeable in form. Not infrequently, food wrong in kind but agreeably prepared is more acceptable to the system than food which is chemically right but less palatable to the appetite. In the case of persons out of health this consideration is one of great importance. It may be a matter of life and death to a child, or an invalid, whether good materials be compounded into an attractive and enjoyable dish, which shall please as well as nourish, or made into a repulsive mass, which shall do neither.
10. **SEE THAT YOUR LIFE BE RIGHT IN OTHER RESPECTS.**—Not only be sure to eat food which is pure of its kind,—agreeably prepared, at right times, and in right quantities—but take care to breathe pure air by night and by day; take some physical exercise (which ought to be in the open air) daily; and practise the strictest cleanliness. Remember, whatever law of life you now infringe, the ill-effects, in the eyes of others, will be regarded as the consequences of your purer diet.
11. **SET MIND AND BODY IN HARMONY.**—Remember that man's physical condition, and the state of his spiritual and mental faculties, are closely and mutually interdependent. It is therefore a primary duty to keep these also in health; and to this end see that they be usefully, tranquilly, and constantly occupied and cultivated. Let no day pass without its quiet hour; none without its social mirth, its exercise of blessed industry, its gleanings from the field of knowledge; none without music; none without the society of little children.

THE HYGIENIC TREATMENT OF CONSUMPTION.

No. 9.

BY M. L. HOLBROOK, M. D.

THE CONSTITUTION AND METHODS OF TOUGHENING IT.

As has already been intimated, the constitutions of those most inclined to consumption are generally delicate ones. From this I do not mean to infer that none others ever have this disease. If the causes be sufficiently active and prolonged, those of excellent constitutions may fall a prey to it, but notwithstanding this, it is usually those who are not strong. What is meant by the constitution? We call it a state of being, a condition of the body and its organs as related to health, strength, elasticity, force, etc. We say a constitution is strong when all these qualities exist in a high degree, weak when in a low degree, and fair when neither high nor low.

We say, sometimes, a person has a powerful, a vigorous, a wonderful constitution. Such are millionaires of health. They endure everything. Nothing seems to hurt them. They hardly need to take care of their health. Such persons are described by Emerson when he says: "But health or fulness answers its own ends and has to spare, runs over and inundates the creeks of other men's necessities."

Not so with the man with a poor constitution. As to health he is a bankrupt, a pauper. He cannot "enter cordially in the game and whirl with the whirling world. He must remain a bystander, must husband his resources to live."

We must not confound the constitution with the temperament. They are very different. The constitution relates to the stored up energy of the body. The temperament to the combination of the different organs. With a good constitution the frame is well developed and the muscular system strong. The muscles are also firm and hard, especially in the male, though this will depend, to some extent, on the manner of life of the person, and whether their labor is altogether muscular or not. The nervous system will be healthy, even and steady, especially the involuntary ner-

vous system which regulates nutrition, circulation and respiration.

The lungs will be well developed and strong. In all cases of persons who have lived to be very old, with almost uninterrupted good health, the lungs and the heart have been made of good stuff, and have performed their functions properly. There is an evenness of development in a strong constitution, a harmony and equilibrium of the organs, and no excessive development of one set and a dwarfing of other parts. In the strong constitution there is no excess of fatty matter, but rather the reverse. Nor need a person with a strong constitution be very large. A medium physical development is most likely to be enduring. Evenness of development and working without friction are of the utmost importance.

The blessings of a strong constitution are many. The person so happy as to be its possessor is far less liable to disease, and if ill, is more likely to pull through and get well when he is very ill.

The person with a strong constitution does not tire so easily, is capable of great endurance, has excellent recuperative power, sleeps well and is fresh and rested in the morning, has natural and healthful instincts, and under ordinary favorable circumstances will live to old age.

If the constitution be very strong, then all these things I have mentioned will be still more favorable. There are persons so full of life and strength that nothing ordinary seems to affect them. These persons we have all seen. We sometimes say they have iron constitutions. They are a law unto themselves. They may eat brown bread, but they do not do it for dyspepsia, but from necessity or choice.

From the strong constitution we now turn to the feeble one. Exactly the opposite state of things prevails. Nutrition is imperfect, the heart is feeble, the muscles are soft and flabby and have little power. The person tires easily and with little exertion. Respiration is easily accelerated and there is feebleness. There is not much energy to expend in external work. It is about all the body can do to keep itself going and in a tolerable condition of repair, and when great strains come upon it there is not energy enough to meet the demand; consequently, the person breaks

down, fails, becomes physically bankrupt, cannot honor his obligations to society, the family or the community in which he lives. If disease comes, recovery is slow and imperfect, if the patient lives at all. The physician dreads such patients. The greatest care is always necessary. The greatest economy of vital forces. The slightest extravagance cannot be tolerated.

Between these two extremes there are many degrees of strength which it is needless to mention, even if there was time. After you have learned the general truth it will be easy to classify constitutions as strong, very strong, feeble, very feeble and medium, or tolerably strong, as the case may be.

There are some cases where the person seems to be feeble, but where there is toughness and power of endurance, and if there is not too great a strain on them, they may live to be very old, and often outlive those who are apparently much stronger. They seem to have the faculty of economizing their physiological resources, and adding to them rather than wasting them. There is an advantage in some respects to such a person over the very strong. The latter are often so extravagant in the use of their life forces that they bankrupt themselves. Especially is this the case when the temperament is unfavorable. The practice of society is to put the great loads on them, to make them do more than their share of life's work. We all know how it is. As the millionaire in money is overrun by a hoard of hungry applicants for help, so the physiological millionaire is subject to similar demands. With all this in mind it becomes very important that the constitution be strengthened and hardened so far as can be done. How is this to be accomplished?

In the first place, it cannot be done by the injudicious and indiscriminate application of rigorous methods, any better than by pampering and protection from every breath of air or every drop of water.

Perhaps I cannot do better than to quote from an old letter which was published in this journal in 1868. It gives the method which Dr. Hosmer applied to his daughter Harriet, the sculptor. He had lost all his other children from consumption, and resolved to use another method with this one: "He took her into the

fields, by the riverside, the seaside, and let her run wild among the hills; he horrified all the conservative, old and middle aged ladies in his neighborhood by inuring her to sun and storm, and teaching her to ride, drive, hunt, fish, row, skate, swim and shoot. In all out-of-door exercise she became proficient, and to this wise treatment grew up strong and vigorous. She became remarkable for her power of endurance, her steadiness of nerve and courage. She became one of the bravest of women, utterly fearless in danger."

Such is the method to be recommended in similar cases. It is the best method of hardening the constitution in early life.

DO ANIMALS SPREAD DISEASE?

In studying the best methods of preventing an epidemic much attention is being paid to the question as to whether domestic animals, cats especially, do carry contagion or not. Physicians disagree in regard to this theory. Dr. H. M. Lash is of the opinion that there is no doubt that infectious diseases can be spread by animals; cats especially, by being handled by various people, are liable to carry the germs of disease in their coats, and these germs, coming in contact with a person's hands or clothing, under certain conditions, develop the disease. Dr. Lash favors the opinion that clothing, money, letters, and the atmosphere will carry disease germs, and patients afflicted with contagious diseases should be quarantined to insure safety.

Dr. Runnels holds that while the theory of a child's contracting the scarletina from playing with a cat is possibly tenable, it is hardly probable. He has known of no such case. It is now a disputed theory among physicians as to whether the scaly particles that fall from the persons of scarletina patients are infectious or not. It has been the general opinion that this was the most contagious stage of the disease, but experiments have shown that while in some cases these scales have proved infectious, in other cases they have not. Dr. Runnels shares the opinion of a noted Chicago physician, who is considered an authority on the diseases of children. The physician in an address stated that certain dis-

eases, as measles, scarletina and diphtheria, are peculiar to children, and all children are liable to them. He believes that if a lot of children were taken out to an island and isolated from every other human being and animal, even in the purest atmosphere. they would have these diseases.

Dr. Runnels is of the opinion that while a dog or cat might possibly carry a germ of disease which would prove infectious, the person would have to be liable physically to take the disease. He does not think that money is liable to carry infection, unless it has been in the mouth of a patient and then another person takes it in his mouth. The atmosphere, too, in Dr. Runnel's opinion, can hardly be considered a medium for spreading disease from different parts of the country, since the currents of air are hardly the same outside the radius of 200 miles.

Dr. T. N. Bryan has little faith in the theory that cats carry disease; while it is a possibility it is not a probability. There are extremists in everything, and the bacteria or germ theory is carried to extremes in some cases. Thirty-five years ago, says the *Indianapolis Sentinel*, diphtheria was not known. It first broke out in Pennsylvania a few years later. While there are genuine cases of diphtheria nowadays, much of the so-called diphtheria is various kinds of throat trouble. Danger of contracting disease lies more in lack of cleanliness and good sanitary regulations than in contact with the so-called germs. Contagious diseases often run through families and neighborhoods through some local cause, as bad drainage, etc.

HYGIENIC HABITS OF COUNT TOLSTOI.

COUNT LEO TOLSTOI reads, writes and receives his friends in his bedroom. It is an apartment some fifteen feet square, without a carpet, and always underheated. In one corner stands an old green leather sofa, on which he sleeps under a single rug. His couch is quite unencumbered with a mattress, sheets or pillows.

The philosopher's daily life is occupied with all sorts of duties which a man of letters is usually supposed not to discharge. He rises at five o'clock, and for half an hour dashes ice-cold water on

his head, neck and breast. Then he draws on his clothes, which include only a blue-checked jumper of linen, a pair of trousers, and heavy, ill-fitting peasant's boots. He never brushes his hair, and his apology for combing it is the thrusting through it twice of the five fingers of his left hand.

At six o'clock he leaves his room for the dining-room on the second floor. There the Count's guests and scholars, of whom there is always a burdensome number at the Jesnaja Poljana Castle, are already assembled for tea. Their host never joins them in taking the great Russian beverage, however. He prefers coffee. The rest of the breakfast consists of white bread, fresh butter, cream, and a peculiar cheese which Tolstoi prepares with his own hands.

He devotes his time between breakfast and noon to cleaning stovepipes, polishing stoves, mending boots, shovelling snow in winter, and other like manual labor. From twelve till one he dines. His dinner, as well as his six o'clock supper, consists of milk and butter, and the same sort of cheese and bread as his breakfast. Count Tolstoi chooses this curious diet because he is a vegetarian. He defends the opinion that man has no right to kill and consume a living organism. The Russian painter, He, once asked Tolstoi: "Is not the vegetable a living organism?" The Count thought profoundly for several minutes, and then replied: "Well, in time science may help us to such an extent that we will not find it necessary to kill even a vegetable organism."

From 1 to 3 o'clock P.M., Tolstoi receives the calls of scholars and guests. He talks freely and deeply with all. He rarely plunges into a conversation of any length, however, without setting out for himself and his visitor two glasses of peasant kvas of his own brew. Count Tolstoi's hours for writing are from three or four o'clock till six. After supper he works at shoemaking for a little while, or sees his family, then gets out of his jumper, trousers and boots, and crawls in between his rug and green leather sofa for the night.

AMERICA'S BIRTH RATE HAS GREATLY DECLINED DURING THE LAST YEAR.

ALL the world has been discussing the decline in birth rate and forthcoming depopulation of France. The phenomenon has been regarded as both unfortunate and peculiar. But, if our last census is correct, a somewhat similar process is beginning with us. Here are the facts as given in the *Medical Journal*.

Between 1870 and 1880, with an immigration of 2,707,000 only, the increase of population is 11,598,000, so that, deducting the immigration, the increase which is due to the excess of births over deaths appears to be 8,891,000. Between 1880 and 1890, with an immigration of 5,275,000, the total increase of population is 12,225,000, and if we deduct the immigration the increase which is due to the excess of births over deaths appears to be 6,950,000 only.

The excess of births over deaths, which was nearly 9,000,000 between 1870 and 1880, falls to less than 7,000,000 in the following decade, although the population at start was 25 per cent. greater in the latter than in the earlier decade. This can be best shown in a table, as follows:

	Increase of Population.	Increase from Births.
1870-80.....	11,598,000	8,891,000
1880-90.....	12,225,000	6,950,000

Thus the birth rate has fallen off both absolutely and relatively. Assuming that this country had a birth rate of 350 per 1,000 yearly, which is about the average of European countries, there would have been 20,000,000 births, and with a death rate of 18 per 1,000, a little over 10,000,000 deaths. We should expect that the increase in population through the birth rate would have been nearly 10,000,000 instead of 7,000,000.

There are apparently 3,000,000 babies wanting, either not born or not counted. The birth rate of the past decade, according to the last census, is about the same as that of France, Ireland and Greece.

It is not an impossible rate, but it is a pathological one. If it is correct we are in the same condition essentially as France, namely, that of a sterile race, whose increase must depend mainly on the immigration. It will not do, however, to say flatly that the census is wrong, for there are many peculiar things about our population which make its growth a somewhat peculiar problem. Nearly half the adult population, for example, is now a foreign born, the proportion of women to men is unusually low, while the number of persons between the ages of 30 and 50 is much below the average—221 per 1,000 as against 246.

TRY HYGIENIC METHODS AND YOU WON'T NEED A DOCTOR.

A WRITER on the subject says: It is quite needless to take quinine as though it were an article of food in this climate, and its effect on all the organs of the senses is finally more or less destructive. The greater number of cases of deafness seeking relief in our hospitals, we are told by statistics, are caused by quinine. It also causes blindness and a pathological condition of the vital organs, especially of the heart. On the whole I think it is well placed among the ten dangerous drugs. Of cocaine I cannot say much, except don't take it without a doctor's prescription. We have several accounts of instances in which it has caused the ruin of doctors who have tried it on themselves for experimental purposes. The cocaine habit, so far as we understand it, is like the morphine and absinthe habits united. The moral of all this is, that when a person does not feel in normal health, don't dose indiscriminately, but go to a doctor. Before going to a doctor try hygienic measures. Eat regularly and do not partake of highly flavored food. Condiments are in truth drugs that do not enter the system without producing some effect. If you are a smoker reduce the number of your cigars daily, take frequent baths, and dress in loose-fitting clothing of the right weight for the season, and take all the exercise that comfort and time will allow. "The walking cure" is just now coming into fashion. It is a good cure for a legion of minor complaints that ordinarily

people want to take drugs for. Let people take less drugs and more good exercise, and get healthy bodies and well regulated minds and the medical profession will go into bankruptcy for the need of patients.

EDITOR'S STUDY.

CULTIVATING DISEASE.—The internal organs do not want to be thought about. A man's stomach is healthy when he doesn't know he has one. When we are conscious of the existence of any internal organ, that organ is sick. The internal machinery was intended to do its work unconsciously, says *Good Health*. When we begin to think about our stomachs, digestion is arrested. John Hunter said he got gout by thinking of his great toe. A man who sits at the table wondering if baked potatoes will agree with him, and whether fruits and vegetables are a good combination, is in a fair way to have trouble with the simplest kind of food. Thinking about the internal organs gets them in a sort of stage fright and they are powerless.

SUICIDE AMONG GERMAN CHILDREN.—A curious return has been made concerning some 289 instances of suicide by school-children in the German empire during the six years 1883 to 1888 inclusive. The interest of the return centres in the motives assigned for these extraordinary acts. Among the cases which could be so explained the largest proportion appear to have been attributable to fear of punishment. This, perhaps, might have been expected, nor is it altogether surprising that such extreme terror should be chiefly exhibited among pupils of the elementary schools. The fact that 20 per cent. of all the collected cases fall into this particular class should, however, afford food for reflection. The child who takes his own life rather than face an angry teacher, must believe, rightly or wrongly, in the ferocity of the teacher; and it is much to be feared that children of tender years, even when they are not so terror-stricken as this, are apt to nurse a suspicion that most strangers and some friends—the teacher in particular among the latter—are human wolves. To eradicate this mischievous misapprehension ought to be one of the first tasks of a successful preceptor.

DO ATHLETICS SHORTEN LIFE?—Apropos of some contemplations over the careers of Cardinal Newman and John Boyle O'Reilly, lately indulged in by a contemporary, *The Medical Record* says: The former was a frail, slight man, of infirm constitution, but despite this he lived to a very advanced age; the latter was a man of splendid physique, who kept his system in training by physical exercise, athletic sports, and followed all the suggestions of modern physical culture. Yet he died in the prime of life. Shall we not then live quiet, ascetic lives, ignoring the body and cultivating the spirit, or shall we cultivate both body and mind? The latter course is the one so much commended to-day, yet it is not a sure passport to longevity, as many cases prove. In fact, the brain worker is better if he lives a regular, temperate life, and pays no attention to the development of his muscles. A little walk, some fresh air and sound sleep are all he needs. Some people, to be sure, can be athletes and do brain work also, but it is not the rule. A sound mind should have a sound body, but it does not need herculean muscles. The best athletic work is done by growing boys and adolescents, who have an extra supply of vitality. When they have matured, and undertaken the responsible work of life, they speedily drop out of the championships. And the lesson we would draw from the opposite case brought up by *Life* is, that athletics are not needed by brain workers, and will, if carried to excess, shorten life rather than lengthen it.

OF INTEREST TO CHILLY PEOPLE.—With the mercury in the sitting room at 68 degs. Fahr., one ought to be comfortably warm, according to a recent authority on hygienic topics. But, to quote the same writer, there are women who suffer from chilliness most of the time from fall to spring, and who therefore live as much as they can in rooms heated to 80 and 90 degs. They object to much underclothing, and make slight change in summer and winter body wear. Of course, they are always having colds and illness of various kinds, which plenty of flannels would entirely prevent. Some assert that flannels irritate the skin and cannot be endured next to it. If not, a silk or cotton garment may be worn next to the skin, and flannel over that. Vigorous friction of the

entire surface of the body before going to sleep, and upon rising from sleep, is an excellent thing to keep one warm. Starchy food, sugar and fats, all articles containing carbon in abundance, are good foods for cold weather. Instead of burning carbon in the stove, put it into the stomach; put on clothing till chilliness ceases, exercise till the body is all in a glow, keep the air of the rooms fresh and pure, and the liabilities to sickness that makes winter a season to be dreaded will be largely reduced.—*Exchange*.

GRUMBLING IS NOT A SIGN OF BAD TEMPER.—A man may be so confirmed a grumbler that he may be universally voted a bore and a person of execrably bad temper, while in reality he is no worse off in that respect than many of his neighbors. He grumbles more as a matter of habit than anything else, and plays, as it were, with his temper. As a rule he does not lose his self-control; he has nothing of that cruel love of wounding other people's feelings, which is the essence of a really bad temper; he simply fumes and fusses about because he likes it. Occasionally, under a load of unusual aggravations, self-control gives way, and the grumbling changes to veritable storm, but as a rule the croaker remains satisfied with making himself passively disagreeable. How disagreeable he is he probably has little idea. It is his nature to find fault and look at the seamy side of things, and he has never set himself to counteract the natural bent of his mind. Yet he may be a very lovable kind of a man; his peevishness may be tiresome, but those who live with him know that it is mere habit, a habit which, from long indulgence, has come to be second nature, and they bear with him patiently, more patiently, perhaps, than he deserves. Nothing, indeed, is more surprising than the fact that not only habitually discontented people, but irritable, angry, bullying fellows, may, and often do, retain the love of their fellow creatures.—*Chambers' Journal*.

THE CAUSE OF RHEUMATISM.—“The real underlying cause of rheumatism and gout is, according to the latest and best authorities, uric acid. For long it was held that lactic acid often found in excess in the blood of the rheumatic was the actual *materies morbi*, but this has been found to be a mistake. It is to be regretted that many popular medical books, even those written by scientific men,

rank damp, worry, anxiety, etc., as sufficient causes. These latter conditions play the same part in developing the symptoms of mercurial and lead poisoning. The poison is already in the tissue, and the unfavorable conditions of damp, etc., by hampering the action of the skin, of the nervous system, etc., merely bringing out the enemy, compel him to show his colors earlier than he would otherwise have done, but cannot create him."—*A. E. Bridger, M. D.*

THE SLEEPING ROOM.—Whatever your room is, and however it is furnished, be sure of one thing—that it is clean when you come to go to bed in it. Don't have dirty water standing in the wash basin or slop bowl. Don't leave dirty clothes in the room unless it is unavoidable, and then put them in the closet or a bureau drawer. Always, even in the coldest weather, open the window a crack. If you are liable to colds you can fence off a draught by hanging a shawl or extra blanket over a chair in front of the window. This is better than a folding screen, because it is not so large or high, and the air has freer ingress. These remarks may seem unnecessary, but I have known some very nice people—like Beecher's Mrs. Prim—who were the reverse of nice in their own chambers. Some folks sleep in dens—literally unaired dens—where the windows are never opened and where the sun never comes. Yes, and about that same sun. Shall its light be allowed to waken the morning sleeper, or shall the blinds be fast closed? This, as a rule, would depend on what hour you rise. If you get up at five it will be well enough to leave the windows unshaded, for the sun is a splendid alarm clock, only failing on rainy days. The majority of people, however, would do better to close the blinds on retiring.—*Edith Minter in Homemaker.*

THE TRUTH ABOUT KOCH'S LYMPH.—A correspondent of the *New York Post*, writes: "Certain New York papers endeavored to make people believe that interest in Dr. Koch's 'lymph' is on the wane, and that the remedy wasn't good for much any way, because certain editors and half-informed physicians thought so. The publication of uncertain statements about 'lymph' is unfair to Koch and unfair to thousands of consumptives. Of the 200,000 or so consumptives in this country, not one, I venture to say, has

lost one tittle of interest in the remedy which may restore health. When consumption gets hold of you, and I speak from experience, the suggestion of a possible remedy which has stood criticism as has 'lymph,' warms whatever spark of hope you may have into a fierce burning fire. You may depend upon it that those of the 200,000 who have not tried the remedy are eager to do so. Here are the facts which I got from a bacteriologist who has studied the matter in Berlin, talked with Virchow and other leaders, made post-mortems, inoculated patients in Berlin, and probably has a deeper knowledge of the subject than any man in this country. He is a cautious, conservative physician of high standing. The majority of patients treated with 'lymph' in Berlin hospitals *have improved*. It is beyond question that 'lymph' *does not cause general tubercular trouble, nor create new colonies of tubercular bacilli. Thus far it has accomplished all that Koch ever claimed it would accomplish*. These are bald facts, and those who oppose 'lymph' have not produced evidence to controvert them. Virchow's post-mortems and the very few deaths among 'lymph'-treated patients make a poor showing indeed against the thousands of cases where marked improvement appears. 'Lymph' will not save a patient who has lost nearly all lung tissue. It certainly has been of decided benefit to patients in the cavity stage of the disease, however; and if only a temporary benefit and not a cure, the medicine will be a blessing. A member of my family is now receiving 'lymph,' with encouraging results; and this is a fight against a cavity in the lungs."

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY HELEN FLETCHER.)

- HINTS TO SAVE ARM ACHES.—A lady recently spilled cream on a woolen dress, quickly placed a piece of absorbent cotton on the cream, letting it stay a few minutes. When removed the cream had been entirely absorbed and not a trace remained on the dress.

A clothier states that the proper way to wash a flannel shirt is to

souse the garment in hot soap-water, never rubbing, and put it repeatedly through a wringer. The garment should never be wrung with the hands and never be put in cold water.

Teach the "girl" to take off the lids and close the drafts of the stove as soon as she is through cooking so as to save carrying in so much coal or wood. This will appeal to her more directly than the thought of saving the fuel, perhaps.

The elasticity of cane chair bottoms can be restored by washing the cane with soap and water until it is well soaked, and then drying thoroughly in the air, after which they will become as tight and firm as new, if none of the canes are broken.

It is a great help to have a kitchen table covered with a piece of zinc smoothly rolled over the edges. It saves the time and labor spent in continually scouring the table, for it can be thoroughly cleaned in a few seconds by wiping it with a wet cloth.

HOUSEKEEPING GIRLS.—It may be true that "most girls of the period know much more about the proper management of a house when they marry than their mothers did," but this is not the experience of the majority of men who marry American girls. No one is brighter or quicker to learn the mysteries of household work than the American girl, but in the great majority of cases she gains this knowledge after her marriage. Wherever the English system of enforcing training in cooking and household work is adopted there the girls are found to be adepts, but unfortunately, especially in the West, the custom is to leave all household work to servants. Thus the girl grows up with no practical knowledge of this work, which seems so easy, but which in reality requires patient study and much practice to do well. So when she comes to manage a household she is at the mercy of servants, who are quick to take advantage of her ignorance. She generally emerges the victor after several years of costly experience, but she would have been spared all this worry, vexation and hard work had her mother insisted, as English mothers do, upon equal proficiency in the kitchen and music room.—*San Francisco Chronicle*.

CONFESSIONS THAT WOMEN WILL NOT MAKE.—There are a round dozen of things that you can never get a lady to plead guilty of, be she old or young. That she laces tight. That her shoes are

too small. That she is tired at a ball. That she uses anything but powder. That it takes her long to dress. That she has kept you waiting. That she blushed when you mentioned a particular gentleman's name. That she says what she doesn't mean. That she is fond of scandal. That she ever flirted. That she cannot keep a secret. That she is in love.—*London Tit-Bits.*

WOMEN AS PHYSICIANS.—I do not hesitate to say, with due deference to the judgment of others, that in my opinion it is important to the well-being of society that the study of medicine by Christian women should be continued and extended. The prejudice that allows women to enter the profession of nursing and excludes them from the profession of medicine cannot be too strongly censured, and its existence can be explained only by the force of habit. It has been urged that women do not as a rule possess the intellectual powers of men, but their ability to pursue the usual medical studies has been sufficiently demonstrated, and it is admitted, even by those who concede to men a higher order of intellect and greater powers of ratiocination, that what women may lack in that direction seems to be supplied by that logical instinct with which they have been endowed by God. It is evident also that if female nurses may with propriety attend men as well as women, that privilege cannot reasonably be withheld from the female physician. Indeed the position of the nurse might be regarded as open to much graver objections, inasmuch as the physician makes but a transient visit to the patient, while the nurse occupies the sick-room day and night. The attendance of female physicians upon women is often of incalculable benefit. Much serious and continued suffering is undergone by women, and many beginnings of grave illness are neglected because of the sense of delicacy which prevents them from submitting to the professional services of men. There is also an infinite number of cases, known to all who have been concerned in charitable or reformatory work, in which no influence or assistance can be so effectual as that of a physician who is also a woman and a Christian.

SOCIETY GIRLS AS HOUSEKEEPERS.—The superintendent of one of the largest grocery stores in Philadelphia remarked yesterday that it was about time for the newspapers to stop their uncompl-

mentary references concerning the ignorance of fashionable girls about cooking. "No newspaper reporter," said he, "knows as much about it as I do. Our place is located on Chestnut street. We are in the very middle of the richest and most aristocratic section of the city, and it is here that girls of wealth and position flock in great numbers. I have observed them closely for nearly twenty years. I have seen them come in shyly with their mothers when they were fifteen years old, and I have known them to bring their children in with them ten years afterward. I have known many hundreds of society girls to marry and take up housekeeping within a few weeks, and I tell you now that, despite the newspaper wits and the army of people who write about that of which they know nothing, the number of fashionable girls who are failures as housekeepers is infinitesimal compared to the number who succeed. I should like to know, by the way, the reason for assuming that because a girl happens to be high-spirited, clever, ingenious and interesting, she should become a failure as a housekeeper. There are qualities that win in housekeeping as in other duties of life, and American girls are loaded up to the eyes with them."

HARDINESS OF WOMEN.—"The hardiness of women always impresses me at the opera," said a well-known business man of New York. "My wife is a good deal of a musical enthusiast, and I always attend the opera five or six times a year on her account. I cannot say that I get any particular pleasure out of it, as Wagner's music is far above me. But the atmosphere of the opera house is refined, the surroundings are beautiful and the lights decidedly attractive. Accordingly, I enjoy it almost as much as if I knew what it was all about. But I cannot understand how the women can wear such low gowns and flimsy drapery and still escape pneumonia. They wear furs, thick walking gowns, boots, gaiters and muffs all day long, and at night they go to the opera clad in a bodice that is little more than a suggestion of covering, and sit serenely amid drafts that would make a man shiver in spite of his substantial clothes. At least twenty men in the audience the other night pulled on their overcoats during the performance, but the ladies sat in the boxes and stalls without suggesting for an instant that

they needed any wraps. Fashion is a wonderful thing in these days, as it was in the days that are gone.

POTASH AND ACIDS IN FRUITS.—In cooking, potash may be added to the acid fruits in small quantities to neutralize their acids and economize sugar; this is often done in stewing gooseberries and rhubarb. The most succulent vegetables contain the greatest proportion of potash, such as lettuce, spinach, etc.; as some must be lost in boiling, it is advisable to eat as many uncooked salads as the appetite demands. In addition to potash, acid and other salts, fruits contain a substance called pectin, which is the basis of the jellies made from them with sugar; such vegetables as carrots, turnips and parsnips also contain pectin, a condition of which unscrupulous manufacturers avail themselves in sophisticating jellies for the trade. The so-called fruit jams of the American local trade are adulterated in this way, and apple butter is largely made of pumpkin and turnip pulp.—*Juliet Corson.*

MUST READ THE PAPERS.—No one knows as well as the woman of the day how much she herself depends upon the newspapers and magazines for the charm and brilliancy that seem to be all her own. She must read the papers, and she knows it. And the more she reads the better it will be for her. Whether in the crowded horse car, or seated upon her luxurious couch in her dainty boudoir, she seeks and eagerly scans the latest and best that is in print, for well she knows that she must add a charm of mind to a beautiful face and stylish dress, or the very ones whom she would give her life and soul to please will turn from her with a yawn.

WOMAN'S WORK IS NEVER DONE. For her care seldom ceases while she is awake, and too often it pursues her even in her sleep. Fashion and social life sometimes make large demands upon her, while the petty annoyances of home fall to her lot almost exclusively. At length unwonted impatience, fretfulness and severity with her children give warning of nervous prostration, and her husband may perhaps precipitate the crisis by his unjust reproaches.

WEDLOCK.—No woman will love a man better for being renowned or prominent. Though he be the first among men she will be prouder, not fonder; as is often the case, she will not even

be proud. But give her love, appreciation, kindness, and there is no sacrifice she will not make for his content and comfort. The man who loves her well is her hero and king—no less a hero to her though he is not to any other; no less a king though his only kingdom is her heart and home. In nine cases out of ten it is a man's own fault if he is unhappy with his wife. It is a very exceptional woman who will not be all she can to an attentive husband, and a very exceptional one if she will not be very disagreeable if she finds herself wilfully neglected.—*Exchange*.

COLD WATER COMPRESSES IN SPASMODIC CROUP.—Dr. J. T. Jelks, of Hot Springs, Ark., says, concerning the efficacy of cold water compresses in affections of the respiratory tract: The cold water compress in spasmodic croup is one of my earliest recollections, my brothers and myself having been sufferers from this distressing disease, and I many times witnessed and felt the speedy relief afforded by cold water. In a practice of fifteen years I have never given a dose of medicine of any sort for the relief of spasmodic croup, and claim that there is no necessity for giving alum, turpeth mineral, aconite, or, indeed, any remedy whatever. A napkin or handkerchief is wet in cold water and wrapped about the throat, and over this is applied a dry towel. In ten or fifteen minutes the child will be breathing easily and will probably be asleep. This seems to be an exceedingly simple thing to do when the family and patient are in such distress, but it has always been successful in my hands."

A SIMPLE METHOD OF REMOVING A NEEDLE.—I think it may be of service to record a simple means by which I obtained the removal of a broken needle from the heel of a young girl, aged twelve, whom I saw lately walking about on her toes to avoid her right heel, into which a needle had been broken, touching the ground. The buried end could be felt, but any pressure led to its further entry. I directed her to wear a large thick corn plaster around the spot, with a little wet cotton wool in the centre, and to tread freely on the heel. Within a week afterwards she showed me the needle, which had protruded, and she had easily withdrawn it. Thus no wound was made, and no scar left to be a tender spot on the plantar surface.—*Chas. Steele, M. D.*

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESSLER.)

INFANT FEEDING.—Dr. Sachapelle gives, in *L'Union Medicale du Canada*, the following table to serve as an approximative rule in the feeding of infants. It will be noted that the amounts allowed are larger than those recorded by Dr Kate Parker as the result of her investigations at the New York Infant Asylum, and quoted by Dr. J. Lewis Smith, in his book on children:

Age.	Intervals Between Meals.	Number of Meals in 24 Hours.	Mean Quantity at each Meal.	Mean Quantity in 24 Hours.
First week.....	2 hours.	10	1 ounce.	10 ounces.
First to sixth week.....	2½ hours.	8	1½ to 2 ounces.	12 to 16 ounces.
*Six to twelve weeks.....	3 hours.	6	3 to 4 ounces.	18 to 24 ounces.
At six months.....	3 hours.	6	6 ounces.	36 ounces.
At ten months.....	3 hours.	5	8 ounces.	40 ounces.

*If needful until five or six months.

THE CAPACITY OF THE STOMACH IN INFANCY.—The subject of the quantity of food to be allowed to artificially fed infants is second in importance only to the character and preparation of the food given. Dr. L. E. Holt has measured the capacity in 142 infants with the following result:

1. Starting at birth with a capacity of about one ounce, the stomach increases in size at the rate of one ounce a month during the first three months, reaching at this time about one-half the capacity seen at one year.
2. From then to eight months its growth is much slower, being, on the average, about half an ounce a month.
3. From eight to fourteen months the rate of growth is still less, being, on the average, about one-third of an ounce a month. Approximately at the ages of one, three, six, and fourteen months the capacity is respectively one, four and a half, six and nine ounces. In short, that there is a fairly constant relation between the age of the infant and the capacity of the stomach, which offers a good guide.—*Archives of Paed.*

FIRMNESS IN HANDLING THE BABY.—The young mother will find her moment of severest trial to arise when she first begins to

bathe her own baby. And right here, too, is her best moment for establishing the fact that she is mistress of the situation. Children, like horses, recognize in a moment the kind of hand that holds the reins, and Master Baby, therefore, must be handled with a firmness which will convince him that this is an operation from which there is no appeal. It is the same handling—firm, yet gentle—gentle, yet firm—which first inspires filial confidence in the heart of the child. Children are a bundle of tiny nerves. Imagine, then, what it would be to yourselves to be handled by some human animal whose touch told you that she was afraid she would drop you! Would you feel yourself in a position of confidence? Probably not. Do not be afraid to handle your baby. He is much better fastened together than you give him credit for, and will not fall to pieces if you take hold of him boldly. The chances are he will say to himself, "This person who has me in charge seems to know what she is about," and he will probably resign himself to your kindly offices without anything more than a few good natured wriggles and twists as the water or his clothing inspires in him one emotion or another.—*Home Magazine.*

THRUSH IN BABES.—Thrush is caused directly by vegetable parasites, the germs of which float in the air; but these germs find the conditions of their development and growth only where the vitality has already been lowered. Hence, the chief prevalence of the disease is among the children of the poor, whose surroundings are bad and whose food is insufficiently nourishing; but all children of unhealthy mothers are liable to it. So are delicate young women whose blood is deficient in red corpuscles. An acid condition of the system is favorable to the development of the disease. For this reason infants are peculiarly exposed to it, since the secretions of their mouths are acid, instead of alkaline, during the early weeks of their lives. The disease is contagious, as has been proved by inoculating healthy children with the white exudation. Children, therefore, should be guarded from exposure to it. The danger of exposure is increased by the fact that the treatment of the disease requires the mouth to be washed out at every meal.—*Youth's Companion.*

PUBLISHER'S DEPARTMENT.

THE HERALD OF HEALTH appears in a new cover this month. This change is made to oblige our advertisers, who are of the opinion that their advertisements will show to better advantage printed upon light covers instead of dark, as heretofore.

NEW MODEL ANATOMICAL MANIKIN.—Elsewhere in this issue will be found an advertisement of the Fowler & Wells Co. new anatomical manikin. This model contains more than 100 views of the human body, the figure is one-half life-size, and in many of the special manikins, of which there are a large number, the parts are greatly magnified. It is chromo lithographed on cloth-lined material, very strong and durable, and colored true to nature. It is adapted for the school-room, lecture-hall, office or for home study, and is the most complete article of this kind ever devised. It stands about three feet high when open, and when closed it is about 18 x 18 inches. The price, with a comprehensive Manual, is \$12.00 to any address, prepaid.

THE SUBSCRIPTION PRICE OF THE HERALD OF HEALTH continues at ONE DOLLAR per annum, cheap enough for the vast amount of practical Hygienic information contained in its pages. We offer liberal terms to agents. Anyone can act as an agent, and we will send inducements upon application by postal. Our friends can help us extend the HERALD's field of influence, by recommending their acquaintances to subscribe. We will send sample copies to any address requested.

OUR UNPRECEDENTED PREMIUM LIST.—We call especial attention to our unprecedented premium list for the ensuing year. It will be found on another page of this issue. The HERALD OF HEALTH is fully worth One Dollar a year, and the premium offer is not made with any intention of pushing this magazine. The HERALD keeps and increases its circulation solely upon its own merits. But we have the opportunity of assisting our friends to procure good literature at reduced prices, and we are desirous that they should avail themselves of the chance. See list elsewhere.

HEALTH INVENTIONS AND APPLIANCES.

ELECTRIC FAN FOR SUMMER USE.—One of the most desirable and pleasant appliances for the summer is an electric fan. In the sick-room it is especially desirable, the noise of operation being so slight that it will not disturb the patient. The merchant in his office cannot enjoy the fresh, cool breezes of the country, but with one of these little fans, he will, at any rate, have the benefit of pure atmosphere, which is essential to good health. For the bedroom it is also acceptable, insuring refreshing sleep to the exhausted. The breeze can be felt from ten to thirty feet, according to the number of cells of battery employed. One cell of battery is sufficient to run it at a moderate speed, and with two cells the fan will ventilate a very large room. James H. Mason, the well-known electrician of 118 and 120 Park Avenue, Brooklyn, has devised an excellent apparatus of this kind, which, with his strong and practical battery, can be bought at a reasonable price.

NEW PUBLICATIONS.

HEREDITY, HEALTH AND PERSONAL BEAUTY, by John V. Shoemaker, A.M., M.D., should become a standard authority on the subjects upon which it treats, and not only should this work commend itself to the physician and hygienist, but the author's attractive style and the facts so carefully imparted upon the care and preservation of the skin and hair should interest every woman who cares to retain her physical attractions well on into middle life. F. A. Davis, the well-known medical book publisher of Philadelphia and London, has produced this dainty and charming volume.

ROHE'S TEXT BOOK OF HYGIENE has just been issued in a second edition by the same publisher. Additions have been made to nearly every page, and some of the chapters have been almost entirely rewritten, thus bringing down to date the new discoveries and advances in sanitary science and art. This work is also a model of typography and binding.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

VEGETATION DIET IN SICKNESS.—Beaumont claims that this diet thoroughly subserves alimentation of the organism; the best proof of which is furnished by the poor peasants who do not eat meat, yet are strong and healthy. This diet is of therapeutic importance in certain diseases. A vegetable diet limits to a minimum the production of toxins, such as neurin, muscarin, etc. It is indicated in sufficient functional activity of the kidneys and alimentary canal, indeed, in all similar conditions where an accumulation of ptomaines in the blood might prove dangerous. It is also indicated in "putrid diarrhoea." In diseases of the stomach, a vegetable diet is especially indicated, as the intestines are principally employed in its digestion, thus affording the stomach considerable rest. In the uric acid diathesis, this diet is also recommended.

VASELINE FOR SORE THROAT.—For a sore or raw throat without much inflammation, an excellent, soothing, emollient application is vaseline. A mass size of a hazel-nut should be taken into the mouth, and as it melts, which it does almost instantly, it should be allowed to trickle slowly back and down the throat.

SAID TO BE A REMEDY FOR FRECKLES.—Halkins states that in carbolic acid we have a certain cure for freckles. The skin, first washed and dried, is stretched with two fingers of the left hand, and each freckle is carefully touched with a drop of pure carbolic acid, which is allowed to dry on the skin. Under its action the part becomes white and burns for a few minutes. In from eight to ten days the cauterized scale falls off and the spot, at first a rose red, soon assumes its natural color.

HOW INSECT PESTS CAN BE BANISHED.—Fleas can be banished by using the following: Take a half pound of fresh insect powder, half a pound of powdered borax, one ounce oil of cedar, quarter ounce oil of pennyroyal all properly put up by druggist. Close the room tight, springle on carpet, furniture and beds and keep closed over

day or night; throw open and air thoroughly. In twenty-four hours there will be no more fleas, flies or mosquitoes left. The rooms can then be swept and dusted. This applies as well to roaches and water bugs.

FOR THE CURE OF PRICKLY HEAT.—In many persons the eruption known as prickly heat comes from the corrosive action of the acid perspiration. It is worse whenever the clothing has an opportunity to rub the skin. In cases of persons having delicate or thin skins, much relief may often be obtained by applying a lather of soap and letting it dry in. The soap is sufficiently alkaline in its nature to neutralize the acid of the perspiration and stop its corroding effect. The soap used should be of the finest kind. As a rule, chafing is due to the same cause, and can be cured by the treatment mentioned. Some persons find the use of soap much more beneficial and satisfactory than that of vaseline or oil of any kind. The oil acts merely as a lubricant and to soothe the inflammation. The soap does the same, but also removes the cause of the trouble to a great extent. In applying the soap to infants extreme caution should be used. Only a small surface should be soaped until certain that no injurious results follow. Some persons get relief from bathing with a weak solution of bicarbonate of soda.—*A. M. Williams.*

CHAMOIS LEATHER AS A PREVENTIVE OF RHEUMATISM.—Chamois leather greatly differs from flannel. In the first place it is a soft application, whereas the flannel is somewhat rough, and is highly irritating to some constitutions, acting in a slight degree like a flesh-brush, and producing a continual annoyance. A late writer, aware of this, has strongly recommended the use of this article for those who stand in need of it, and also as a preventive and remedy for rheumatism, etc. Being of a close texture, and possessing an absorbent quality, the perspiration will not pass through it with such facility as through flannel or even through linen; it becomes moist, and it is worthy of notice that this temperature is higher than that of linen in the same state on the same persons. The chamois leather is as good a conductor of heat as linen; whereas flannel, if not a non-conductor of heat, is certainly a very bad one. In all the cases in which we have known the chamois leather worn it

has produced beneficial results, though for a time it even will cause irritation. If it is worn as socks, for the prevention of chilblains, it will be found extremely beneficial.

NEW REMEDY FOR ERUPTIONS OF THE FACE.—The great disfigurement of this disorder, especially when it occurs in females, renders any proposal for removing eruptions and blotches that is not likely to prove inimical worth trying. We cannot vouch for the value of the following remedy, though we may confidently assert that it will not, like many advertised nostrums, prove injurious to the patient, even should it not have the desired effect. The application is the oil expressed from fresh walnuts, smeared over the face at night on going to bed, which may be washed off in the morning by means of a little oatmeal in the water instead of soap. The oil of walnuts is generally imported from France, and is, we believe, principally made use of by artists for mixing their colors.

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THE
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Forty-first Year.

MAY, 1891.

No. 5.

SOME OLD AND NEW THEORIES ON REDUCING
EXCESSIVE FLESH.

IN support of the theory that retention of waste is a potential cause of corpulency, it is instanced, says an Albany practitioner, in the *Times* of that city, that one physician cured himself by the use of hot water. While under treatment he was careful not to over-eat, and excluded from his diet some of those foods which are richest in fat producing elements, but the dietetic restrictions were not at all severe; so the credit must be given to the hot water, a gallon or more of which was drunk daily. By this means the accumulated waste was well washed out of the system, and a rapid reduction in weight took place. And, what is even more important, a permanent cure was effected, for when he stopped the treatment and ate anything and everything he craved, there

WAS NO RETURN OF THE TROUBLE.

It is somewhat surprising that cold water and hot water should differ so radically in effect upon corpulent people. The former certainly favors their complaint. It is a well-known fact that beer is fattening, but it owes such action almost entirely, if not absolutely, to the water. Here it is interesting to note the beer drinking experiment of a German physician. For four years he drank two gallons of beer daily, and increased his weight seventy-eight pounds. On stopping the beer he lost fourteen pounds in seven

days. In corpulent people the fattening effect of cold water is always greater if it is indulged freely with the meals or shortly after them. A probable explanation is that, by distending the stomach and diluting the digestive fluids, it retards digestion, which process, as already said, is seldom, if ever, as active as it ought to be in corpulent subjects. Hot water, on the other hand, stimulates digestion, and at the same time promotes a

FREER ACTION OF THE LIVER,

kidneys and bowels. Beyond this it favors the elimination of waste through the pores of the skin. In the most of the treatises upon corpulency it is advised that the quantity of fluids of all kinds be reduced to the lowest degree consistent with comfort. Corpulent people influenced by this are quite apt to carry the restriction too far. A certain quantity of water is essential to life and health, and if too great a denial is practiced, injury is sure to result.

A SAFE RULE,

when trying to take off fat, is to drink at least half a pint of water, as hot as possible, in the morning on getting out of bed, and another just before retiring at night. This quantity, with what is taken with the meals, will be quite enough to meet nature's requirements. As for fluids between meals, very little of them will be needed, if the diet is properly restricted and the over-worked digestive organs are favored. Just as soon as their burdens are lightened they will grow stronger, and with the renewal in strength the intense thirst will disappear. Weak tea, on account of hot water, is recommended with the meals. As for wines, corpulent people are better off without them; of all kinds, probably good claret is the least objectionable.

The diet to which

CORPULENT PEOPLE USUALLY RESTRICT THEMSELVES

is one which rather favors sluggishness of the bowels; therefore, a mild laxative is generally needed, at least for a time.

Another injunction, which appears quite uniformly in works which treat of corpulency, is to employ cold baths. Undoubtedly these favor a reduction in weight. But few corpulent people,

however, can take them, either in the form of full-baths or sponge-baths. Circulation in such people is notoriously sluggish; and they do not recover quickly from the chill of a cold bath, as all should do who indulge in it. If cold is applied, and reaction occurs after hard rubbing for a minute or two, the skin is reddened, and the subject is in a warm glow, it can safely be assumed that the bath has been well borne and done good. The person who does not present these favorable signs should limit himself to a bath of tepid water, the same to be taken in a warm room.

AS FOR EXERCISE,

it is scarcely possible at first to persuade corpulent people to take as much as they ought. Where they are thoroughly in earnest, however, they soon learn to enjoy it, and feel the deprivation when it is denied them. Gymnastic exercise, under competent teachers, is, of course, the best; but walking is highly beneficial, and can be made to answer every purpose. It should be borne in mind that a sharp, brisk walk which produces a perspiration is far better than a long leisurely stroll, owing to

THE GREAT ELIMINATION OF WASTE.

It is scarcely necessary to go deeper into the subject of diet. The first essential is to restrict the quantity of food to the actual needs of the system. A ravenous appetite can generally be conquered in three or four days. During this interval a person "turning over a new leaf" feels quite weak and dispirited; but he braces up with surprising rapidity, and soon wonders that he ever made a glutton of himself. He who diets should make up his mind before he sits down to the table just how much he will eat, and on the instant that he has finished his rations he should leave the dining-room. "He who hesitates is lost." If the corpulent subject took no more food than he ought, he might eat almost anything. At the same time he would do better to deny himself sweets and starchy foods, cakes, pies, pastry and the like. The quantity of bread should be restricted; one or two slices of dry toast is quite sufficient for a meal. Potatoes are very fattening, and, therefore, had best be excluded from the diet. If milk is

used, the quantity should be small. As for meats, those which are lean should be preferred. Soups, for

OBVIOUS REASONS, ARE OBJECTIONABLE.

Briefly summarizing: To open the sewerage of the body and expel the waste matters which have accumulated is of the first importance in the treatment of corpulence. Hot water and exercise will largely do this. That the overworked digestive organs may be relieved, the quantity of food should be the smallest possible consistent with strength. Food which burden digestion or favor the production of fat should be excluded from the diet. Every corpulent person who observes these simple rules will soon find himself growing lighter in weight and his general health improving, physical as well as mental. His gain will correspond to a degree of faithfulness with which he adheres to this regime. And once he is back to near the standard of weight, he will need no urging to ever afterward obstruct threatening corpulency.

THE HYGIENIC TREATMENT OF CONSUMPTION.

No. 10.

By M. L. HOLBROOK, M. D.

THE HOUSE AND HOME.

Most of us are born, spend a large portion of our lives and will take our departure from this world in houses. In them we create an artificial semi-tropical climate where we may dwell in comfort during such portion of the day and night as we are not actively engaged in out-of-door labors. It is safe to say that a majority of all houses are not perfectly sanitary; that they need doctoring as much as their occupants do, and that they not only cause many diseases, but retard cure or prevent it altogether. There are few, indeed, of the readers of these pages who do not know of houses in which one after another of its occupants have died off with consumption, or other diseases of the lungs. There seems to be something in the very walls that cause diseases, and those who

live in them are doomed. Other houses, by slow degrees, undermine the health of the occupants, but it is so insidiously done that they

DO NOT KNOW THE CAUSE.

I will give some of the characteristics of a sanitary house and its surroundings:

1. The site should be dry and the soil clean. If the site is not dry it should be made so by draining, and if the soil is not clean it should be removed. Few are aware that there is a constant interchange between the air of the soil with that of the cellar and house. The ground-air may be very impure, and bring into the house the germs of many diseases which weaken the constitution and lead to consumption. In malarious localities the soil is generally filled with the germs of malarial fevers, and they may rise into the house where there is a current of hot air upward to cause a draught.

2. The cellar should be dry. I remember a house which, for convenience, was built so that a spring was in it under the kitchen. This spring furnished the water for the house by means of a pump. The cellar was always wet. Two of the inmates of this house died of consumption, and several more were threatened with it before they removed. There are many under-ground streams in New York and other cities, and the houses built over or near them have wet cellars, and the death rate is larger than elsewhere. So it is in almost every city and country town, and even in the farming regions. If you wish to take away from your household one serious cause of consumption and other diseases of the throat and lungs, avoid houses built on a damp soil. Something can be done to keep back the water and ground air from the cellar by a good asphalt pavement, by a ventilator into the chimney and good ventilation of the cellar in addition.

3. There are many old houses, the timbers of which are more or less decayed and give off a musty atmosphere which pervades the whole house. These, too, must be avoided.

4. The walls of some old houses are filthy with the accumulations of poisonous substances from diseased breaths and the air of

closets or kitchen and laundry, and no one can be perfectly healthy who lives in them continually. Don't try to get well of consumption in such a house. Far better build a hut on some suitable ground, or even in a tree, and live in it than in a house whose very walls are

A SOURCE OF DANGER.

5. The air of a house must be kept as nearly pure as out-of-door air as can be. Invalids with any disease polute it far more than the healthy. Their breath is loaded with poisonous products which must be gotten rid of as soon as possible.

To accomplish this there must be a great deal of fresh air admitted constantly. The more the better, provided draughts are not produced, or too low a temperature caused. Probably 5,000 cubic feet per hour for the patient will suffice, provided occasional additional ventilations by wind are made. Allowances must also be made for those not ill, for lights and fires; for all consume the oxygen of the air in large quantities, and at the same time leave behind the products of combustion. A large lamp burning in a room will produce more carbonic acid than several men. A sick, and even a well man, gives off from his breath certain animal products which are more poisonous than the carbonic acid, and if the man is ill and has a bad breath these products are exceedingly injurious to those who inhale them. For such the amount of fresh air required to carry off these products is very great. Complete knowledge on this subject cannot be given here, but can be found in standard works on hygiene.

The bedroom ought to be large and the windows open during such part of the day as they are not in use, even if the weather is cold, and partly open at night.

6. Light, next to air, must be abundant. Bay windows, large windows with clear glass to admit the sunshine, must be provided. Light is a powerful stimulous to the nervous system. I have kept a careful watch and record of twenty cases of persons with nervous temperaments and found that in nearly all of them they felt better, and could accomplish more work in a sunny day than in a cloudy one. The difference in feeling cannot be estimated in feet or in

pounds, but can be observed in the countenance, the lightness of the heart and freedom from irritability.

If shade trees surround a house they obstruct the light and heat of the sun and cause dampness and darkness, and these conditions favor the development of consumption, and most certainly prevents its cure. In an institution where orphan girls were confined, scrofula was a constant evil. The shade trees made the house damp and dark. The doctors could do the patients no good. At last the trees were cut down and the girls got well without the aid even of the physicians.

In a town of 15,000 inhabitants in New England, excessively shaded by great elms, the streets most shaded have a high record of death by this disease. Bodily deterioration always results from such causes, and always will.

Heavily draped windows shut out the light of the sun almost as effectually as a wall, and make the rooms cheerless and dismal. Hygieneists have stated this fact over and over again until it is stale, and yet the evil goes on. I spent an hour recently in the sitting-room of a man known as a millionaire, and so shaded was his parlor with drapery that, though it was in the day time, he had to light the gas to show me some rare engravings. I felt a relief when I was out in the open air and sunlight.

It is not necessary that the sun should shine into a room all the time to make it healthful. The diffused light, though less powerful, has a great sanitary effect. Our houses cannot be said to be healthful unless this light has free access into them.

A HOUSE THAT IS NOT SANITARY

Can often be made so by effort, and often without expense, and should be. There are few perfectly healthful houses anywhere, and this adds often to the expense of living, by loss of time with illness and the cost of curing it. A sanitary house and its healthful surroundings will often do more to prevent disease than the doctor can to cure it.

The surroundings of a house should not be forgotten. The closets, the shade trees, the drains, the barn and manure heaps, the swamps, the well and spring, or cistern, may all contribute to

cause and prevent the cure of the disease we all have been considering. Indeed, one of the reasons often for sending patients to another climate is to take them away from some of the unsanitary conditions in and around their own homes, which might be remedied.

Every dwelling, whether there be invalids in it or not, should be inspected now and then by some competent person. These are some of the things which the owner of the house or its occupants can do themselves:

1. If in a city, inspect the street, its direction, and the amount of sunlight the house receives. Whether the buildings about it are high to obstruct, or low, and admit air and light. See if it is clean, if the gutters allow impure water to run off or not—if the pavement is good. Notice if any sewer opens near the house and if any shade trees shade the windows and cause dampness.
2. Notice the site, whether soil dry or damp, sand, loam or clay.
3. Observe the yard, whether high walls around it, whether paved or drained, whether slops thrown around loose, situation of well, closets, cisterns, and if offensive odors prevail, and if goats, cats, and dogs and chickens are kept.
4. Note the material the house is made of, and how it is put together. If of wood, see if any is rotten. If of brick, if walls are dry or damp, and the condition of the outbuildings. If in country, notice location of streams well. Note the size of the house and of the rooms, and especially of the bedrooms, and whether they are lighted and ventilated.
6. Visit the cellar and notice size, whether dry or damp, if ventilated and how, the kind of floor and walls.
7. Examine the closets and see if clean or not.
8. Examine the plumbing so far as can, and see if pipes leak or not, if old or new, if of iron or lead, and if trapped properly. Examine the ventilation and lighting of the main rooms of the house with great care, and observe all defects. Observe the number of inmates, and find out whether contagious diseases have prevailed, and if there is a cheerful outlook and inlook, too, if I may use that word, and if the children are pale and sickly-looking. Inquire if any room is haunted; observe the paper on the walls, the size of the bedrooms and windows, the condition of the floor, the presence

or absence of rats and mice; whether the house is heated by stoves, grates, steam or furnaces; whether the roof leaks and if the air of the house is offensive or not. See how the pantry is kept, and also the storeroom, and if any vegetables are allowed to decay. If flowers are cultivated, see if they are thrifty, for they, like ourselves, pine in bad air. These hints will suggest others. They are of the utmost importance in breeding consumption, and, it may be added, other diseases.

ON THE HYGIENIC CARE OF THE BEDROOM.

THE bedroom in the average American woman's household, says a lady correspondent of the *New York Mercury*, is generally totally misunderstood in all of its uses and functions. The prevalence of boarding throughout the nation has much to do with this, and the writer is correct in her remark. The bedroom is often made a place to live in, to sit in. Properly considered, this is absurd, noxious in a fastidious point of view, indecent. A bedroom is strictly a place to sleep in, to go in for rest, for retirement, for privacy. If there be not a dressing-room, however modest, annexed—and an effort should always be made by every dainty woman to secure the latter—it is a place sacred to the care, to the sanctities and mysteries of the personal toilet. It is the place where a woman recruits, where she draws upon all her resources for looking lovely, and it should be, of all places in the house, the one where the most hygienic conditions prevail, since it is to its possessor

THE STOREHOUSE OF HEALTH AS WELL AS BEAUTY.

It is very difficult to carry out the proper regime of a hygienic toilet unless the surroundings are propitious. But if all cannot compass the facilities and luxuries of a thoroughly equipped bedroom and dressing-room both, there are certain infallible laws which should become universal. The abolition of the custom of double beds is one of these. For years this has been an exclusively American habit. In European countries double beds are most rarely seen. Single beds are the rule. Of course every one

knows, theoretically, that it is far more healthy to sleep alone. But of what avail has this theoretic knowledge been? The American child has been first allowed to sleep with its nurse—a most pernicious custom—or its elder sister or its mother; the growing girl sleeps with her room-mate at school; the young lady with her aunts and her cousins and her girl friends indiscriminately. People who would have hesitated to allow a bunch of roses to remain in the room over night, or a growing plant, have never had their own bed to themselves year in and year out. The plant—which did not consume the oxygen of which their lungs stood in need, but precisely the effete gases thrown off by their own system—was thought very injurious. Another pair of lungs breathing up the breathable air and infecting the remainder with the respiratory refuse of those physical processes that are most active during sleep was not thought of with any objection at all. Yet,

WHAT A SIMPLE LAW OF HYGIENE WOULD NOT DO,

fashion, a notion as to what is transatlantic and “correct,” is beginning to achieve. From fashionable furniture establishments there comes the announcement that two single bedsteads are always called for at present with each chamber suit furnished for what is known as “swell patronage.” So much the better. The double bed is a relic of pioneer days—of times of make-shifts and “bunking” as best one could. How many fatal diseases, how many cases of slow undermining and poisoning of the system are due to this custom of promiscuous sharing of double beds on the part of young girls, who will ever know? The fact will never be fully realized till people grow sensible enough to know that bed linen takes the insensible rejections of the pores as well as body linen, and who would care to wear another’s body linen? Have your single bed, then, if possible; if not possible, do not sleep with a person much older than yourself. Young girls occasionally sleep with their grandmothers!

COULD ANYTHING BE MORE BARBAROUS?

The worn out organism feeds on the fresh one and sucks and saps it as surely as if it were a vampire. Curtains to the bed are com-

ing into vogue, and, provided they are not too heavy, are rather healthy than otherwise, for if you wish to be a physically perfect woman you must have an abundance of fresh air in your room at night, and light curtains to the bed, suspended from a canopy overhead and drawn so as to break somewhat the force of the draught, will possibly prevent the contracting of possible colds therefrom. The proper way to furnish a bedroom is lightly, with airy spaces between the furniture. Carpets are rather a drawback than otherwise; so are thick portiers or draperies of any sort that will catch and retain particles of dust. Bare wood floors, with rugs that can be aired and shaken, are better. The lighter and simpler the furniture the more conducive to that absolute purity of atmosphere which cannot be too much insisted on for a sleeping apartment. The bed should never be tucked away in an alcove; should not, indeed, be set up against the wall. It should so stand that the air may circulate freely around it. A sleeping-room must not be too warm if you do not want a shriveled skin and dull eyes. But neither must it be kept too cold. This is a great mistake. Not only is it injurious to the lungs to inhale ice cold air during sleep, but it is indirectly an exceedingly unbecoming practice, since it necessitates a great amount of heavy covering, and sleeping under heavy covering

INVARIABLY MAKES THE FACE BLOATED AND SODDEN

and the eyes baggy. Beware also of cotton "comforters" and quilts if you want a clear, fine, transparent complexion. They are utterly non-porous, prevent the free evaporation of the secretions of the skin, and in the course of a long life-time might make a woman, without other aid, as sallow of visage as the rind of a lemon. Blankets, light and soft, and, for cold weather, an additional spread of eider down in a silk casing, make the ideal bed-covering from the sanitary standpoint and, eventually, that of personal appearance. Every morning detach each blanket and sheet separately, and lay over the backs of chairs to prevent their sweeping up the dust of the floor. Turn up the mattresses and let a sun and air bath reach one and all. Never roll a night-dress under the pillow. A garment kept away from the air in that

fashion is not fit to wear; it is musty and unhealthy. Air and sun the night-robe as you do the bed-linen.

The practice of allowing soiled water to stand in bedrooms over night is very reprehensible. No vessels of any sort should be permitted to taint the air. Very subtle poison is breathed up and suffered to enter the system in this careless way. No bedroom is complete without a long, low, comfortable lounge furnished with cushions for those half hours of rest during the day, which are such potent aids to the maintenance of youth and good looks. The bed itself will be all the fresher, all the sweeter, for the restful slumbers of the night if it be not touched at all in the daytime after the full hour or two (at least) of airing in the morning. It is an Italian idea, and one worthy of some respect, that a bedroom should not be even done up until toward evening, its windows being all open meantime to the searching and

GERM-KILLING BREEZES OF HEAVEN.

Above all, let plenty of sunshine pour into a bedroom; and if you are of a pale, lymphatic temperament, and want to deepen and brighten the tints of eyes and skin, make it a practice to take frequent sun baths, by sitting down with your back to the window and letting the sun beat steadily for an hour or so upon the base of the brain, where the spinal and cranial nerves converge. Nothing is more tonic, more health-giving, to the entire nervous system, or can be better recommended.

Happiness is the greatest of beautifiers, then good spirits will naturally help to keep eyes and skin bright and fine, while low spirits will dull the countenance and, long continued, cause it to grow sodden and comparatively dead.

THE USES OF ELECTRICITY TO THE HUMAN BODY.

The dangers of electricity to the body are considerable, but fortunately they are provided against, and generally in a very secure manner. It is, therefore, probable that danger from this cause to the body is less than those connected with the use of gas and oil, but the uses of this agent to the human body affect a large

number of persons, and far outnumber the dangers. Messrs. Lawrence and Harries, English experts, while denying that there is any evidence in favor, or reasonable probability of proof, of the much vaunted statement that "Electricity is Life," are able to show that electricity plays an important part in human vitality. A long series of experiments clearly indicate that small but measurable currents of electricity are being continually generated in the body, and that these currents differ in potency according to the parts tested. It is their belief that atmospheric electricity in the process of transformation and re-transformation of oxygen into ozone, and ozone into oxygen, and in other ways, passes through a cycle of transmutations, starting as atmospheric electricity, and finishing as the body currents mentioned. This conclusion has largely been borne out by the experiments of Dr. B. W. Richardson upon the effect of administering frequently-used oxygen to animals. Massage is another form by which electricity is conveyed to the human body, and observations and experiments show that, while in all cases the patient gains electrically by the rubbing, the rubber gains also. These results are accounted for by the fact that exercise seems always temporarily to increase the body currents, provided it be not sufficiently violent or long sustained to cause exhaustion. Massage acts upon the patient by improving the circulation, and by emptying the lymphatics, and so, to that extent, is akin to gentle exercise; hence the increase of the body currents noted in the patient. Any gain in body current on the part of the rubber is probably due to the exercise taken, but this gain may be rendered negative by accompanying exhaustion, and from this the conclusion is drawn that electricity does not pass from rubber to rubbed in massage.

EDITOR'S STUDY.

OUR ESTEEMED CORRESPONDENT IN ST. LOUIS, to whom we are often under obligations for many valuable suggestions, takes the editor to task in an interesting note, for publishing in our April issue a communication from the *Evening Post* of this city upon Koch's lymph. Says our correspondent:

"This lymph is worse than strychnine and as bad as snake poison. All hygienic doctors work on the sick to rid the sick from all poisonous substances, and give pure home stimulating foods that nourish the system; nature will do the balance; but when the drug doctors try to and make the sick and community believe that what will make a well person sick will cure a weak and sick person, then we can take it for granted that they don't know what they talk about, or are hypocrites that only work to make the most money from suffering humanity. Hoping that in the future you will take a stand for or against the drug poison, so that we may know the black from the white sheep,

"I remain, yours truly,

"_____"

Our correspondent is right in part and in part wrong. His views upon Koch's lymph and drug doctors are shared by all teachers and followers of hygienic principles and practice. But the Editor's Study is a department for all sorts of views and news. Its pages are open for free discussion. The article found fault with was written by a correspondent and printed as such, and in no wise represented the views of the editor of this magazine. Months ago we denounced Koch's lymph as a humbug. We try to make the Editor's Study interesting, and to promote criticism and discussion upon articles therein published.

SIMPLE HEALTH EXERCISES.—At a recent meeting of a woman's club, where a paper on "Exercise and Gymnastics" had been read and discussed, one of the members gave her fellow-members the benefit of an experience of her own. It was her habit, she said, when walking, to take as few inhalations as possible, and hold them to the last second. "I draw a deep breath, walking very rapidly when I have filled my lungs, and I do not take another until I have reached a certain point in the block. By practice I am able to get on with perhaps three inhalations through a long block. The result is exactly as if I had been running hard. My blood tingles all over me, and I seem to have brought every nerve and muscle into active play. In this way a short walk, if only to the elevated station or to catch a car a block away, gives me a great deal of

condensed exercise." A second member of the club supplemented this with the case of a well-known physician, who told her that he made a practice invariably to hold his breath when crossing a street. He had become so addicted to the habit now that he did it instinctively, filling his lungs involuntarily as he stepped on a crosswalk. Some months of this practice had noticeably expanded his chest measure.

HOW TO READ THE TONGUE.—The perfectly healthy tongue is clean, moist, lies loosely in the mouth, is round at the edge and has no prominent papille. The tongue may be furred from local causes or from sympathy with the stomach, intestines or liver. The dry tongue occurs most frequently in fever, and indicates nervous prostration or depression. A white tongue is diagnostic simply of the feverish condition, with perhaps a sour stomach. When it is moist and yellowish brown it shows disordered digestion. Dry and brown indicate a low state of the system, possibly typhoid. When the tongue is dry and red and smooth, look out for inflammation, gastric or intestinal. When the papille on the end of the tongue are raised and very red we call it a strawberry tongue, and that means scarlet fever. Sharp, pointed, red tongue will hint of brain irritation or inflammation, and a yellow coating indicates liver derangement. When so much can be gained from an examination of the tongue, how important it is that the youngest child should be taught to put it out so that it can be visible to the uttermost point in the throat.—*New York Ledger.*

SUCH STUFF AS DREAMS ARE MADE OF.—The materials of dreams may be enumerated as memories of waking sensations, memories of waking thoughts, and new sensations received in sleep, whether from without or within. Dr. Gregory mentions of himself that, having on one occasion gone to bed with a bottle of hot water at his feet, he dreamed of walking up the crater of Mount *Ætna* and feeling the ground warm under him. He had at an early period of his life visited Mount Vesuvius, and actually felt a strong sensation of warmth in his feet when walking up the side of the crater, and he had more recently read Brydone's description of Mount *Ætna*. On another occasion, having thrown off the bed-clothes in his sleep, he dreamed of spending a winter at Hudson's

Bay and of suffering distress from the intense frost. He had been reading a few days before a very particular account of the state of the colonies during winter. Dr. Reid had a blister applied to his head, and the plaster which was put on afterward causing excessive pain, he dreamed of falling into the hands of Indians and being scalped. A whisper in the ear is sufficient to produce a dream, and it is related of a certain officer that his companions in this way conducted him through the whole process of a quarrel, which ended in a duel, and, when the parties were supposed to meet, a pistol was put into his hand, which he fired, and was awakened by the report.

SENSES GO TO SLEEP IN DEFINITE ORDER.—According to the best writers on the subject, it has been ascertained that, in beginning to sleep, the senses do not unitedly fall into a state of slumber, but drop off one after the other. The sight ceases, in consequence of the protection of the eyelids, to receive impressions first, while all the other senses preserve their sensibility entire. The sense of taste is the next which loses its susceptibility to impressions, and then the sense of smelling. The hearing is next in order, and last of all comes the sense of touch. Furthermore, the senses are thought to sleep with different degrees of profoundness. The sense of touch sleeps the most lightly, and is the most easily awakened; the next easiest is the hearing; the next is the sight; and the taste and smelling awake the last. Another remarkable circumstance deserves notice; certain muscles and parts of the body begin to sleep before others. Sleep commences at the extremities, beginning with the feet and legs, and creeping toward the centre of nervous action. The necessity for keeping the feet warm and perfectly still, as a preliminary of sleep, is well known. From these explanations it will not appear surprising that, with one or more of the senses, and perhaps also one or more parts of the body, imperfectly asleep, there should be at the same time an imperfect kind of mental action, which produces the phenomenon of dreaming.

CLOSING UP WINDOWS.—The practice of closing up a window in a chamber by placing the head of the bed against it is not safe without some other contrivance to shut off the wind. Paper is the

best material for such a use, as it is but slightly porous. So before you place the little daughter's bed against the northern window, get paper—newspaper will serve—and, closing the outside shutters, seal up the window. The mucilage or paste needed to fasten the paper to the casing will wash off easily in the spring and leave the paint and woodwork uninjured. With closed blinds and drawn shade neither the neighbor without nor the visitor within will guess your handiwork. Any window in chamber, hallway or storeroom, where shutting out the light is not objectionable, can be treated in the same manner, and the warmth and comfort gained will be surprising. Sometimes it is desirable to entirely shut off part of a hallway or entry. A curtain of canton flannel or some heavy material will help, but a partition of paper is much more effectual. A slight framework of pine wood should be fastened to the wall, and to this two or three thicknesses of paper should be glued. When a pretty curtain is hung over it, the domestic makeshift will present a decorative effect quite surprising.—*Harper's Bazar*.

HYGIENIC MEASURES IN CATARRH.—At this time, when so many people are suffering from catarrhal affections of the upper passages, a few suggestions published by Dr. Bosworth in the *Medical Record* are very pertinent. He justly commends that the characteristic habit of "taking cold" by persons suffering from catarrh cannot be broken by local treatment, but that much may be accomplished by certain common sense hygienic measures—*e. g.*, the use of proper clothing and the bath. In the matter of clothing he insists that the first rule should be that patients suffering from catarrhal diseases should use woolen underwear, selected with reference to the functions of the skin, and therefore "porous, permeable and such as shall admit of the freest circulation of the air." Elasticity and porosity are, in this view, indispensable qualities of the fabric, and hence heavy flannel underwear, causing discomfort and perspiration, is to be avoided. In the use of the cold bath Dr. Bosworth finds an invaluable remedy for the hygienic treatment of catarrhal patients. He shows that the best method of taking the cold bath is as the tub or plunge, and if this cannot be endured daily, cold sponging should be resorted to. The ines-

timable virtue of the bath or sponging is not in its cleansing power, but as tonic to the skin, promoting a healthy activity of its heat-regulating function.

THE USES OF HOT WATER.—A strip of flannel or a napkin, folded lengthwise and dipped in hot water and wrung out, and then applied around the neck of a child that has the croup, will usually bring relief in ten minutes. A towel folded several times, and dipped in hot water, and quickly wringing and applied over the toothache or neuralgia, will generally afford prompt relief. This treatment for colic works like magic. There is nothing that so promptly cuts short a congestion of the lungs, sore throat, or rheumatism as hot water, when applied promptly and thoroughly. Tepid water acts promptly as an emetic, and hot water taken freely half an hour before bedtime is the best cathartic possible in the case of constipation, while it has the most soothing effect upon the stomach and bowels. The treatment, continued a few months, with proper attention to diet, will cure any curable case of dyspepsia. Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.—*Exchange.*

LOOK TO YOUR LEGS.—We are growing deficient in legs, says a writer in the *Pittsburg Dispatch*. I don't mean we are legless, but that our lower limbs are rapidly becoming mere rudimentary members for lack of proper exercise. When the tinkle of the horse-car bell was heard in the towns, citizens walked little; and now that the various rapid transit systems are in operation the citizens walk less. The results of much riding and little walking are apparent in nine men out of ten met upon the streets. Spindle shanks, weak, uncertain steps, and a general air of weariness mark the patrons of the street-car. This state of affairs is not due entirely to the great American desire for speed. Laziness, pure and simple, is to blame. No matter how much time a man may have, and no matter how fair the day may be, if he has more than a quarter of a mile to travel, he rides. He rides to his work in the morning, and the suggestion that he start earlier and walk would be received with scorn. He rides home from his work in the evening, and more or less cheerfully accepts the discomforts of a

car crowded with fellow-resters. When he arrives home he wonders why he has no appetite, and tells his wife that she can not cook like his mother could. Sundays and holidays are spent in the house, with never a thought of a five-mile tramp and its attendant benefits. In consequence his legs shrivel up to pipe-stem proportions, his liver hardens, and his head grows soft. Finally he takes his last ride—to the cemetery—as much a suicide as the man who shoots himself. So out into the air, and walk out, too. Legs were not made to be bent or bear a lapstone during the major portion of their service. They were made to carry you, and, on certain occasions, carry the one you love next to your own sweet self. Use your legs and lengthen your life.

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY ELLEN FLETCHER.)

SILK UNDERWEAR NOT HEALTHY.—While silk is exceedingly warm, soft and pleasant to the flesh, it is at the same time not the healthiest substance for an undergarment for either a man or woman. In proof of this, practical observation has demonstrated that silk stockings will make the toughest and healthiest feet moist, wet and tender, until walking almost becomes a torture. A silk scarf worn around the neck, next to the skin, will produce sore throat in nine wearers out of ten. Silk makes the neck hot and moist, and the first stray breath of cool air that strikes the skin feels like a drop of ice water and will produce a cold. Silk seems to have the faculty, as contrasted with wool, of opening the pores and inciting perspiration, and if it will do this with the neck and feet there is every reason to believe that it will produce equal susceptibility to cold when worn about the chest and limbs. Those who wear silk stockings invariably have tender feet. The rule that applies to the male will apply with equal force to the female. Silk underclothing may be very comfortable, but perhaps the advocates of dress reform would do as much good if they would discuss carefully the hygienic value of the material as well as of the cut and style of the perfect undergarment.—*Baltimore News.*

AIRING THE BED.—It is not everybody who can make a bed well. Most servants produce poor results in this respect. Beds should be stripped of all belongings and left to air thoroughly. Don't, however, leave a window open directly upon the bed and linen with a fog or rain prevailing outside. It is not uncommon to see sheets and bedding hanging out of a window with, perhaps, rain not actually falling, but with 90 per cent. of humidity in the atmosphere, and the person sleeping in that bed at night wonders the next day where he got his cold. A room may be aired in moist weather, but the bedding and bed must not absorb any dampness.—*New York Times*.

DON'T BE A PICTURE.—One of the loveliest of nature's gifts to woman is a beautiful complexion; but when a young woman goes to work to improve upon nature by the use of paints and powders she has made a mistake. No man or woman blames any girl for using all the simple measures in her power for the beautification of her face and form. It is one of the cardinal principles of a woman's nature to try to make herself as pretty as she can—pretty in her own eyes and pretty in the eyes of others—but no matter how dexterously or artistically the dainty rouge may be applied its presence is tell-tale, and no matter how fair she may otherwise be the girl has lost every charm to the sensible and worldly-wise when the verdict "she is painted" is decided upon her. Have your athletic exercises, your regular course of training at the gymnasium, your massage and your Turkish bath, but for mercy's sake don't have your paint pots ready for every day use. Banish them from your dressing-table, and in their stead make vigorous use of water, fresh and wholesome, and the pure, crisp air and early morning sunshine.—*New Orleans Times-Democrat*.

HOW OLD IS AN OLD MAID?—When does a maiden become an old maid? Ah, there's the rub! If somebody will determine this point the social world will feel a shock of relief and then go whirling on more smoothly than ever. You who have never been old maids, and never will be, have no idea of the worry a certain class of women endure. As they approach the 30-year-old period they begin to get nervous and show signs of impatience. They will not admit that they are scared, but by their eagerness to attract

attention and the earnestness with which they discuss matrimonial and kindred topics it is quite apparent they are merely whistling to keep their courage up. If they only knew that worry and anxiety bring wrinkles, irritate the nerves and disturb the circulation, they would try to be calm. Nervousness ages them more than hard work, while disturbed circulation is a sure destroyer of good complexion. It used to be thought that a girl had lost her best opportunities if she were not married before reaching the age of 21, but that notion has been effectually upset. She may sail along safely until she is 30, and if she doesn't fret and worry herself into a fright, she can even go several years longer without being branded with the obnoxious letters, O. M. There are old maids who haven't seen 20 summers, and there are maidens who have seen 40 winters who are not old maids. It is a condition of mind and heart rather than a question of years. With foreigners it is different. The women marry anywhere from 14 to 20. Hungarians and Poles are given to early marriages. Old men marry young bits of girls, but old women rarely young men. The Hungarian laborer wants a wife to help him make a living, and he wants her to be strong and healthy. Their wives know what is expected of them, and assume the burdens of wifehood with the feelings of one entering upon a lifelong servitude. American women look upon it as the beginning of the best and most enjoyable part of life.—*Pittsburg Gazette.*

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESSLER.)

INFANTS SHOULD NOT WEAR RED STOCKINGS.—The *Journal d'Hygiene* reports an interesting fact recently submitted for the consideration of the Council of Hygiene and Public Health, in the Department of the Seine, Paris. A number of infants had been attacked with a severe irritation of the skin and itching after having worn stockings dyed red. One of them presented symptoms resembling active poisoning. An inquest was ordered by the

Prefect of Police, and two pairs of stockings were enclosed in a sealed package and sent to M. Schutzemberger for examination. The learned specialist of the Council of Hygiene found that the color of these stockings had been obtained from a coloring matter analogous to congo (the coloring principle of benzidine or of tobedine), associated, very probably, with another red coloring matter derived from aniline or its analogues. As a mordant it was necessary to employ tannin and tartar emetic or tartarized antimony. The examination for arsenic gave positive evidence of its existence, but in quantity too small to permit any responsibility for the accidents to be attributed to it. In regard to the oxide of antimony, the case was different, for it was found in large quantity. "Under the influence of the cutaneous perspiration," said M. Schutzemberger, "a part of this agent may be dissolved and cause irritation of the skin, with the formation of pustules. It is known that the ointment, having tartarized antimony for its base, is employed for this purpose. If different kinds of material dyed in this way with tartar emetic and tannin cause no inconvenience so long as they are separated from the skin by some other inoffensive material, it is not the same with stockings, which rub directly on the epidermis and cause irritation, more or less extensive and penetrating, when they contain agents such as the oxide of antimony, which may be dissolved by the action of the perspiration." Having heard the report of M. Schutzemberger, the Council of Hygiene decided that the use of stockings dyed with the aid of metallic preparations should be proscribed and considered as dangerous, especially in the case of infants.

WHEN A BABY SHOULD WALK.—People sometimes ask, "At what age can we seat a child in a chair? when put him on his legs? how old must he be before we teach him to walk?" The answers are easy. He must not be made to sit till he has spontaneously sat up in his bed and has been able to hold his seat. This sometimes happens in the sixth or seventh month, sometimes later. The sitting position is not without danger, even when he takes it himself; imposed prematurely upon him, it tires the backbone and may interfere with the growth, so the child should never be taught to stand or walk. This is his affair, not ours. Place him on a

carpet in a healthy room or in the open air, and let him play in freedom, roll, try to go ahead on his hands and feet, or go backward, which he will do more successfully at first; it all gradually strengthens and hardens him. Some day he will manage to go forward upon them, and then to raise himself up against the chairs. He thus learns to do all he can as fast as he can, and no more. But, they say, he will be longer in learning to walk if he is left to go on his knees or his hands and feet indefinitely. What difference does it make if, exploring the world in this way, he becomes acquainted with things, learns to estimate distances, strengthens his legs and back, prepares himself, in short, to walk better when he gets to walking? The important thing is not whether he walks now or then, but that he learn to guide himself, to help himself, and to have confidence in himself. I hold, without exaggeration, that education of the character is going on at the same time with training in locomotion, and that the way one learns to walk is not without moral importance.—*Popular Science Monthly*.

THE REMOVAL OF FOREIGN BODIES FROM THE NOSE.—A writer in the *Lancet* gives a method by which he was able to remove a foreign body from the nose of a child. The nozzle of an india-rubber bag full of air is inserted into the nostril which does not contain the foreign body. The nostril should be well closed by the nozzle. Any remaining chink may be closed with the left forefinger and thumb. In the case of a very young child the bag is squeezed while the child is crying, during which the nasal and oral cavities are shut off from one another. The air returns by the other nostril and forces out the foreign body. If the patient is old enough to understand, he is made to take a sip of water, and during the act of swallowing the air is forcibly expressed from the bag.

ORIGIN AND TREATMENT OF MEASLES.—Measles are contagious, and may be spread not only by direct contact with the sick person, but by the clothing, etc.; they may even be carried long distances by infected clothes, or by healthy persons who have been with the patient. They are especially a children's disease, although nursing infants are practically exempt, and it is not un-

usual at all for adults to be attacked. They are usually epidemic, but sporadic cases are frequently met with, that is, isolated cases will occur, for the cause or origin of which we may look in vain. There is no better time than May or June to have measles, and if you have children of from six to twelve years of age, I would advise you to allow them to be exposed to the contagion during these months, rather than run the risk of their catching it during more unfavorable months. Measles usually come on with sneezing and the symptoms of a cold in the head; there is a tired, drowsy feeling, sore muscles, headache, backache, and then a more or less well defined series of chills, followed by a feverish condition. If the child has been exposed to a case of measles, and has "caught" the disease, it usually breaks out in fourteen days, and the first symptoms (the sneezing, headache, etc.) in nine or ten days from the date of exposure. When the rash commences the child should be kept in the house, perhaps in bed. Attend carefully to the bowels, as a diarrhoea may come on, which may result in bad complications. At the same time constipation must be avoided. The room should be well aired and of comfortable temperature, but draughts must be carefully avoided. There is an old notion that the room must be hot, close and suffocating and the child wrapped in bedclothes, but this is all nonsense. Keep him warm and comfortable and avoid draughts; that is the great thing. When the rash is well out, or coming out, rub the skin with vasaline or even lard. Give him weak lemonade to drink warm, but not enough to cause perspiration. Flaxseed tea, with lemon and sugar, made warm, rich and palatable, is an excellent drink, as it is laxative, cooling and eases the cough. Nine-tenths of the mothers can bring through nine-tenths of the cases of measles safely and without danger of after-claps. Look carefully to the diet of the child from the very beginning. Rice, crackers, and any of the various prepared cereals, but all must be well cooked and served with plenty of milk. A milk diet is the best of all. After the rash has all disappeared the child begins to feel better and gets frisky very rapidly; and now comes the hardest time for the mother, for he runs great danger if he is allowed to go out under two weeks. Don't think because the rash is gone

that the disease is cured. Two weeks is the regular duration of a case of measles, and exposure, even very slight exposure, during that time, may result disastrously and bring on trouble, which, if not leading to fatal complications, will cause inconvenience or pain.—*From Talks With the Doctor.*

PUBLISHER'S DEPARTMENT.

THE QUESTION OF PURITY IN FOOD is a matter of the greatest importance, and deserves most careful and constant consideration: yet so ingenious are the methods nowadays adopted to adulterate, and the processes employed to cheapen, manufacture, that it is often very difficult to determine the merits of any particular article of food. With W. Baker & Co.'s breakfast cocoa, however, no such difficulty arises, for it is produced from the finest cocoa seeds only, exclusively by mechanical processes, and as no chemicals whatever are used in its preparation, all possibility of impurity is avoided. The result is that W. Baker & Co.'s breakfast cocoa is not excelled in solubility, and is not approached in purity by any similar product in the market, and it still remains, as for over one hundred years past, the standard of purity and excellence, and the most healthful and nutritive cocoa in the world.

MANY OF OUR SUBSCRIBERS are still in arrears. Payment of subscriptions to the HERALD OF HEALTH should always be made in advance. Will our friends who have overlooked this matter take the hint?

“THE DAUGHTER, HER HEALTH, EDUCATION AND WEDLOCK.”—We are strongly tempted, had we space in this issue, to quote copiously from the excellent work under this title published in dainty form by F. A. Davis, of Philadelphia, but shall do so in future numbers. Dr. William M. Capp is the author, and in a pleasant, practical style, conveys information upon which every mother with a growing daughter should be thoroughly posted. It is a work, however, that can be safely placed in the hands of every young woman to her instruction and advantage.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

TUBERCULOSIS.—D. L. C. Hygienic treatment is the only proper course. Dr. Holbrook's articles on consumption that have been running in the *HERALD OF HEALTH* for some months convey all the best information on this subject.

ONE METHOD TO DETERMINE DEATH.—The French Academy of Sciences, ten or fifteen years ago, offered a prize of \$5,000 for the discovery of some means by which even the inexperienced might at once determine whether in a given case death had ensued or not. A physician obtained the prize. He had discovered the following well-known phenomenon: If the hand of the suspected dead person is held towards a candle or other artificial light, with the fingers extended, and one touching the other, and one looks through the space between the fingers towards the light, there appears a scarlet red color where the fingers touch each other, due to the blood still circulating, it showing itself through the tissues which have not yet congested. When life is entirely extinct the phenomenon of scarlet space between the fingers at once ceases. The most extensive and thorough trials established the truth of this observation.

HOW TO CLEAN HAIR BRUSHES.—To clean hair brushes, dip them up and down in soda water, rinse in tepid water in which ammonia (one to a basin) has been mixed. Place several thicknesses of brown paper on the back of a very moderate oven, set the brushes upon this, bristles down, and dry.

LIVING A CENTURY.—The best answer to C. W. A.'s question as to whether life can be prolonged to one hundred years is given in the following from the *Medical Age*:

First—Live as much as possible out of doors, never letting a day pass without spending at least three or four hours in the open air.

Second—Keep all the powers of mind and body occupied in congenial work. The muscles should be developed and the mind kept active.

Third—Avoid excesses of all kinds, whether of food, drink or of whatever nature they may be. Be moderate in all things.

Fourth—Never despair. Be cheerful at all times. Never give way to anger. Never let the trials of one day pass over to the next.

The period from fifty to seventy-five years should not be passed in idleness or abandonment of all work. Here is where a great many men fail—they resign all care of interest in worldly affairs, and rest of body and mind begins. They throw up their business and retire to private life, which in too many cases proves to be a suicidal policy.

During the next period—the period from seventy-five years to one hundred years—while the powers of life are at their lowest ebb, one cannot be too careful about “catching cold.” Bronchitis is a most prolific cause of death in the aged. During this last period rest should be in abundance.

Anybody who can follow all these directions ought to live to be two hundred years old at least. There is always this comfort, however: If we cannot live up to our ideas always we can at least try our best to do so, and the steady effort will be bringing us constantly nearer them.

MID-DAY SLEEP.—X. W. An authority on the subject says: “In addition to the good night’s sleep, it is a good plan to take a short nap in the middle of the day. It divides the working time, gives the nervous system a fresh hold on life, and enables one to more than make up for the time so occupied. It is well to guard against too long a sleep at such times, since such is apt to produce disagreeable relaxation. There has been much discussion regarding the after-dinner nap, many believing it to be injurious, but it is nevertheless natural and wholesome.”

ONE POUND OF OXYGEN A DAY.—The air in a room 12 x 12 x 9 feet, which may be said to be the average size sitting-room in small tenements, contains 101 pounds of air; it contains 24 pounds of oxygen. Let us suppose this room to be hermetically sealed, which is a thing of practical impossibility, because the air will exchange with the outside air through a large number of crevices and cracks, especially between casings and through the brick

masonry of the walls, through cracks and lack of tightness in the windows and doors. A full-grown person in normal health requires about one pound of oxygen a day; he therefore could live for 24 days breathing incessantly the same air, if it were not for the accumulation of carbonic acid gas. He would begin to feel discomfort from the cause at the end of the fifth day, when the air would contain about 6% of the gas. At the end of the eighth day light would cease to burn in that room, but a man would not succumb until about the end of the twelfth day.

THE HERALD OF HEALTH.

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THE USE AND ABUSE OF DRUGS.

WM. E. LEONARD, M. D.

BECAUSE the doctors have for centuries given in one dose from one to sixty-five (!) ingredients—literally true in at least one famous prescription—all manner of compounds, all of unknown effects, have become so common that patent medicines, tonics, bitters and every imaginable mixture of “yarbs” and alcohol are to be found at almost every street corner in America. And these are not only to be found on sale, but, what is worse, are being constantly sold in large quantities. European countries are more truly civilized in this respect, having but one drug store to our one hundred, owing to the protection of more stringent pharmacy laws, carried out by governments more paternal than democratic.

A LEGITIMATE RESULT

of this wide-spread experimental abuse of so many medicines is to be seen in the medicine closet of almost every household in the land. Nasty liniments, either patent or home-made—and all harmful when freely used—bottles of paregoric, Jamaica ginger, cough syrups, peppermint, etc., of all degrees of agreeableness, make up such collections. Whenever a member of the family, from the baby up to the head of the house, has any trifling ail-

ment, these bottles are brought into requisition. The children learn to dread to complain of stomach-ache, a cough or other trouble, lest a nauseous dose be forced down their throats.

VERY OFTEN THE FATHER,

having watched this process for a generation, has swung to the other extreme, and becomes a skeptic in medicine, and refuses drugs, even when in actual need of them. So the mother is left to conduct the heroic home pharmacy in a rigid, painstaking way, as the children are well aware. If they live in a town or city, such a family will spend from fifty to one hundred dollars a year at the corner drug store, running there almost daily for hot drops of pain, opium or brandy for diarrhœa, and generally the druggist's own prescription in little complaints. They never once remember that he is there to sell his wares, and that they are making him rich by their credulity in swallowing whatever he suggests, at great expense to their own bodily welfare. For instance, the common use of quinine for everything from a cold to a serious fever is more fraught with danger from the long-lasting effects of the drug than was the wide-spread abuse of mercury forty years ago.

IF CIVILIZATION AND THE DRUG TRADE

go hand in hand, then truly the United States is civilized, for in 1880 there were invested in the drug trade, in round numbers, twenty-eight and one-half millions of dollars, with products to the value of thirty-eight millions. To this add ten and one-half millions capital, and fourteen and one-half millions of products in the patent medicine business, and the result is the enormous total of thirty-nine millions capital, twice the amount invested in making bread, and nearly an equal amount of products consumed, viz.: drugs, 52½ millions; bread, 65 millions. Surely the people of this great republic are almost as fond of drugs as of bread, so startling is the proportion! If by some sudden catastrophe all the drugs were swept out of the world, and the race were compelled to begin over again, or depend, for a time at least, upon proper hygiene and diet, the next generation

WOULD BE MUCH BETTER FOR THE CHANGE.

The very conservative profession of medicine is slowly learning

its life-long mistake in giving too much medicine, and many of the oldest and best physicians use less medicine each year. Recent experiments in England and Russia prove that the ordinary doses of old school medicine interfere greatly with the processes of digestion in all instances, and that this interference lasts from two and a-half to ten hours—the latter with the use of quinine.

NOR ARE THE MORE NUMEROUS

orthodox physicians to blame. While homœopaths have far more confidence in medicines applied, as they believe, according to a definite law of nature, nevertheless, they also are occasionally guilty of neglecting the surroundings and diet of their patients, and accrediting their medicine with too much power. The water-cure people, or hydropaths, the vegetarians, Grahamites, etc., err in the opposite extreme, and avoid medicines altogether.

THE MORAL OF ALL THIS

should be obvious to all who may take on sickness—and who may not? Endeavor to overcome any moderate ailment, one that simply renders you uncomfortable, or possibly compels you to cease your incessant grind at business, and rest for a day or two, by using common sense as to your habits and surroundings. For instance, let more pure air into your houses day and night; eat less and more slowly, and drink not at all while eating; do not curtail your sleep by dissipation; keep your feet dry and warm, etc.

WHEN YOU THINK YOURSELF SERIOUSLY

attacked by disease, summon a physician of recognized good sense and judgment, and known to give but little medicine. If you take pains to carefully select such a medical advisor, and let drugs alone, mark my word, you will save money at the end of the year, even though his fees seem large.

At all times avoid making your digestive canal a receptacle for all sorts of compounds, of the effects of which neither the friend recommending them, the druggist dispensing them, nor frequently the doctor prescribing them, knows little, if anything, definite.—*Home Magazine.*

PRACTICAL SUGGESTIONS IN THE USE OF THE THERMOMETER.

BY THOMAS M. STEWART, M.D.

THE thermometer is an invaluable aid in diagnosis and prognosis, giving exact information that cannot be obtained in any other way. The axilla is generally the best part for examination of temperature; when this is not practicable, the mouth will do. In the axilla, place the thermometer in its centre and hold the arm snugly against the side of the chest, drawing it somewhat across the front of chest. When the temperature is increased beyond 98.5° it merely shows

THAT THE INDIVIDUAL IS ILL.

A temperature of from $101-105^{\circ}$ shows a more or less severe fever, in accordance with the following points: A temperature above 105° indicates impending danger; $108-109^{\circ}$, a fatal issue may without doubt be expected in a comparatively short time. There are some recorded exceptions to this rule, but of a doubtful nature. With the above points appreciated, let us try to get the application in practice. Degrees

MARKED IN FAHRENHEIT SCALE.

A person yesterday felt well, who shows this morning a temperature above 104° , is almost certainly the subject of an attack of ephemeral fever or ague—it cannot be typhoid fever. A patient shows the general signs of pneumonia, and the temperature never reaches 101.7° , we may conclude that no soft, infiltrating exudation is present in the lung. A high temperature in a case of measles or scarlet fever after the eruption has faded, indicates that some complicating disturbance is present.

IN TYPHOID FEVER,

when the evening temperature does not exceed 103.5° , we have probably a mild form of the trouble. A temperature in typhoid of 104° in the morning or 105° in the evening shows danger in the third week. In pneumonia a temperature of 104°

and upward indicates a severe attack. In acute rheumatism a temperature of 104° is always an alarming symptom, foreshadowing some complication, such as pericarditis. A jaundice, mild in appearance, becomes pernicious if a rise in temperature occurs.

IN A PUERPERAL FEMALE

an elevation of temperature shows approaching pelvic inflammation. In phthisis an increasing temperature shows that the disease is advancing, or that complications are setting in. A fever temperature of 104° to 105° in any disease indicates that its progress is not checked, and complications may still occur. In continued fevers the temperature is generally less high in the morning than in the evening.

STABILITY OF TEMPERATURE

from morning to evening is a good sign; conversely, stability of temperature from evening to morning is a sign that the patient is getting or will get worse. A falling temperature from evening to morning is a sure sign of improvement, but a rising temperature from evening to morning is a sign of his getting worse. Convalescence from disease does not begin until the normal temperature of the body returns and maintains itself unchanged through all periods of the day and night.—*Pulte Quarterly*.

JUSTICE MCARTHUR AND HIS ALCOHOL BATHS.

JUSTICE MCARTHUR is one of the retired Justices of the United States Supreme Court of the District at Washington. He has led an active and hard-working life, and now, at seventy-seven, he does not look as old as many a man of sixty. He is tall, erect and fine-looking.

“I am,” said he, in a long talk with Frank Carpenter, the well-known artist and literateur, “naturally of a strong constitution, and I attribute my almost perfect physical and mental condition largely to a very good set of digestive organs. I can eat anything, and drink anything, and am one of the few men of whom it may be said that they do not know that they have a stomach. I have

been so throughout my life, and I attribute my continuing in this condition in that such excesses as I have committed in the past, I have always made up for by rest and bathing. If I am up late at night,

I TAKE PAINS TO SLEEP

late the next morning, and if I am at a big dinner I see that my pores are thoroughly open the next day, so that any deleterious matter that I may have taken into my system may pass away. I don't believe in asceticism, nor in the mortification of the flesh by rigid rules of diet, by limiting the appetite and by denying one's self that good may come. I believe that man should take as much pleasure out of life as he can consistently with his work as he goes along. The desire for enjoyment is natural, and it should be gratified as much as hunger and thirst. I am a great

BELIEVER IN HOT-AIR BATHS,

and I keep myself in good condition by one of them every week. I think the Turkish baths are good, but my favorite bath is the alcohol hot-air bath, which I take regularly when I am at home. When I am away I take the hot-water bath, making the water red-hot and soaking myself in it until the perspiration flows freely out of every pore of my skin. I don't believe in the use of much soap in bathing, and think that the pores of the skin are not helped by the alkali that is taken into them."

"Of what nature is your alcohol bath?"

"It is a bath of the vapor of alcohol. I take it in my bathroom, and do it by putting perhaps a gill of alcohol in an iron cup. I light this and place it under a chair; then, having undressed, I set myself over it and throw a large blanket over me and around the chair, making a hot-air chamber for myself. In a short time

I BEGIN TO PERSPIRE,

and the perspiration runs out of my pores in streams, washing out my skin and making me perfectly clean. When the alcohol is burnt out I throw off the blanket and jump into my bath-tub. I rub myself with a crash towel, and then complete the drying with a softer one. I then lie down for a few minutes, and when I

get up I am a new man. Such a bath makes you feel that you have never been clean before. It revives your whole system, and the alcohol acts as a tonic. You get only the good qualities in the alcohol, the burning having precipitated the injurious ones, and these, going into your system through the pores as vapor, act upon you as a tonic. Some people rub their skin with the raw alcohol, but I do not advise this, nor do I think it beneficial.

THE ONLY EXERCISE I TAKE

is walking. I walk about three miles a day when in Washington, and I am very fond of it. I usually see the bright side of things, and in looking back at the difficulties I have surmounted in my life, I believe in work and not worry, and I think that any young man who will use the criterion of common sense in his life, enjoy it as much as he can, treat himself as he would a good machine, and conform to nature and nature's laws, has a good chance of many days."

WHEN DOES OLD AGE BEGIN ?

SOME men are old at forty, while others may be almost said to be young at eighty. A man is just as old as his tissues, particularly those of his heart and brain, and there are octogenarians who, for mental and even physical volatility, might be their own grandsons.

THE SECRET OF SUCH PERPETUAL YOUTH

lies mostly in regular exercise, whether in felling trees or in the humbler form of the daily "constitutional." Even when life has at last fallen into the sere and yellow leaf exercise of a kind and amount suited to the "shrunk shanks," stiff joints, brittle bones and other evidences of senility will keep the furnace of the vital locomotive aglow long after others less carefully stoked have paled their ineffectual fires. But this can only be done (to continue the metaphor) by slackening speed and reducing pressure. If old men will jump hedges as in their salad days they will not improbably do so to a musical accompaniment of snapping thigh bones. If they run to catch trains their hearts are extremely likely to mark

their sense of such an outrage by stopping work; Dr. Hammond, of Washington, has collected seventy cases which have occurred in that city during the last ten years of men dying suddenly from running after street cars.

IF A MAN HAS RIDDEN

all his life he may continue to do so as long as he can sit a horse, otherwise this exercise is too violent for the aged. The "constitutional" is unquestionably the sheet anchor of old age as far as exercise is concerned. I need say nothing more about it than that each walk should be taken with a definite purpose, if it is only to set one's watch by a particular clock. To have an object of some kind makes all the difference between wholesome exercise and the listless dragging about of the dead weight of one's own body, which makes walking one of the most fatiguing as well as the dreariest of all forms of motion.

TO SUM UP THE WHOLE SUBJECT,

the golden rule for exercise through all the seven chapters of man's strange, eventful history, is to use it that the stream of life shall flow swift and clear, never stagnating like a muddy pond, and, on the other hand, never dashing itself to pieces in mere foam and fury.—*Morell Mackenzie.*

THE VALUE OF OATMEAL AS FOOD.

OATMEAL has recently received some adverse criticisms. This is not surprising, as no food article is just the thing in every case or at all times. Our daily experiences convince us of such truth, by likes and dislikes for very common and the most wholesome foods. It is natural and best to have some variation of the diet. One thing may be just adapted to the state of the individual—bodily and mentally—at one time and not at some other; while with another person it may never agree. The so-called "eternal

fitness of things" needs to be carefully studied before deciding an important question too hastily.

WITHOUT ENTERING INTO LENGTHY

and uninteresting details, chemistry, physiology, and experience, all prove oatmeal one of the most valuable cereal foods for producing good muscles and clear heads. Why, then, is it frequently found to disgrace? It is easily answered. By being used almost exclusively as mush, it is swallowed so easily that it is not properly mixed with the saliva—the first step for digestion.

WHEN THERE IS LITTLE OR NO SALIVA,

as in some diseases, there is also a very weak or no digestion. A good authority says, "No saliva, no digestion." If any soft food, mush, toast, etc., is swallowed too rapidly, or any food is washed down with tea, coffee, milk, beer, wine or water, some degree of indigestion is thereby produced, sooner or later, as often shown by a sense of fulness, discomfort, belching and other disturbances. If there is a lack of saliva, or that of proper quality, it is often best to eat some hard kind of bread, as the thin, hard, Scotch oatmeal bread, bread crusts, rusks, etc., when the teeth admit of it, and very slowly, to thus naturally increase the amount and quality of the saliva. Such a course is often a better and a safer corrective

THAN ALL THE DRUGS AND NOSTRUMS IN THE COUNTRY.

Good health can usually and should be secured by correct living. The best physicians are those who recognize this fact, and try to teach it to such patients as are wise enough to employ them. Oatmeal can be used in a variety of ways. As mush, it is often drowned in too much milk, sugar, butter, etc., for good digestion; is swallowed so easily that it helps leads to overeating and its bad results. Let us go slow before we reject oatmeal as a food.—*Joel W. Smith, M. D.*

DIURETIC EFFECTS OF GRAPES.—Dr. Pecholier, of Montpellier, has published a note on the diuretic effects of grapes, which would appear to confirm the diuretic action of glucose recently brought

to notice. In two cases—one a patient with cardiac disease, and the other the subject of hepatic cirrhosis with ascites—a “grape cure” was undertaken with the best results. In the former patient, notably, five pounds of grapes were daily ingested in three parts, and the diuresis produced was much more considerable than with milk, digitalis, or iodide potassium.

MEDICAL MORPHINOMANIACS.—Dr. Rochard, who contributes to the *Temps* a letter on the need of institutions for the treatment of morphinomania in France, asserts that medical men and their auxiliaries, the chemists, constitute a good half of the total number of morphinomaniacs, though they naturally take every possible care to conceal the fact. He attributes the prevalence of this depraved habit among members of the profession and pharmacists, to the facility with which they can procure the drug, and urges that, since this is the case, restraint offers the one possible means of effecting a cure.

Victims to the habit are allowed to go on to the bitter end in their own homes. Suicide is a common termination, and appears to have become more frequent since the cocaine habit has been associated with the other. It was hoped at one time the introduction of the cocaine habit would prove antidote for the morphine habit, but the reverse has proved to be the case. The effects of the two drugs are in reality superimposed, and the result is a peculiar form of mental alienation manifesting itself by the mania of persecution and its usual concomitant, a tendency to suicide.—*Medical Press*.

COCOANUT BUTTER.—Dr. Schlenck, a German chemist, is credited with the discovery that excellent butter can be made from the milk of the cocoanut. In an official report on the same subject Dr. Zerner, second physician of the Royal Imperial Hospital at Vienna, declares that in cocoanut butter a fat has been found that meets all hygienic requirements, and is far superior to animal fat and butter as well as to any other of their substitutes. French and American authorities also support these opinions. Cocoanut butter is described as a white transparent mass, of the consistence of lard, without granular texture. It is stated that the cocoanuts are imported from India, and chiefly from Bombay.

EDITOR'S STUDY.

DANGER IN LICKING ENVELOPES.—The public is frequently warned by the medical profession of the danger which lurks in the practice of damping the gum on envelopes with the tongue, and notwithstanding the many cases of virulent and serious diseases, especially of syphilitic type, which have been traced to such an origin, the practice is still almost universal. Among attempts which have been made to provide a means of escaping the necessity of licking the envelope is an automatic lock envelope, which has just been patented. On the flap of the envelope are two projecting flanges, and all that is necessary to close the envelope is to fold these flanges by clearly denoting lines, and insert the flap thus narrowed in a slot, whereupon the folded flanges automatically lock themselves, and the envelope cannot be opened without being torn. The operation sounds much more complicated than it really is, for one of the new envelopes can be closed as readily as the better known gummed envelope. Still another remedy is a patent machine which moistens the open flaps of envelopes and similar articles drawn through it. This consists of a reservoir with convex under surface, which is attached to the vertical member of a frame. When the gummed flap of an envelope is passed under a sponge which extends slightly downward within an opening in the base of the frame, a spring arm is slightly lifted and raises a plug, allowing water to enter the reservoir and permitting its flow through the sponge, which is thus kept in a thoroughly moist condition. The immediate return of the plug to its position by the spring arm, after the envelope had been passed through, prevents further flow of the moistening liquid.

WATER AS A MEDICINE.—The human body is constantly undergoing tissue change. Worn-out particles are cast aside and eliminated from the system, while the new are ever being formed, from the inception of life to its close.

Water has the power of increasing these tissue changes, which multiplies the waste products, but at the same time they are renewed by its agency, giving rise to increased appetite, which in

turn provides fresh nutriment. Persons but little accustomed to drink water are liable to have the waste products formed faster than they are removed. Any obstruction to the free working of natural laws at once produces disease, which, if once firmly seated, requires both time and money to cure.

People accustomed to rise in the morning weak and languid will find the cause in the imperfect secretion of wastes, which many times may be remedied by drinking a full tumbler of water before retiring. This very materially assists in the process during the night, and leaves the tissues fresh and strong, ready for the active work of the day.

HOW BACTERIA ARE PRODUCED.—Bacteria and other forms of disease germs can be easily produced in clear liquids, as water, by placing therein a small quantity of organic matter, say infusion of hay, and exposing it to the air. The liquid at first becomes turbid, and a film will form on its surface, and a deposit on the walls of the containing vessel. This matter, under the microscope, is found to be composed of minute organized bodies, some rod-like, some globular, others spiral. These bodies are capable of self-propagation, and are endowed with motion. Not only in liquids, but in the floating dust of the air, these forms are found, as also in certain soils where uncleanness exists. These germs have been found in the blood and tissues of the body when certain forms of disease prevail. The connection between them and the disease, as cause and effect, is well established. Question—How do they find their way into the system? Answer—By two avenues, chiefly, the lungs and the stomach. These portals have no sentinels to guard them, and the lungs must receive air, and the stomach water and food. It is therefore of vital importance that we study to avoid bad air under all circumstances, and reject the polluted waters of wells, reservoirs and cisterns.—*Popular Science*.

A CANE THAT REDUCES THE FLESH.—A corpulent friend showed me a few days ago a cane, which he values highly for its alleged properties. "This was given to me," said he, "by a merchant who has spent much time in Yucatan, and is thoroughly familiar with the country and its productions. One day he heard of a wonderful wood which grew in the country to the south of Yucatan, in

the region which has been unconquered by the whites, although they have made many attempts to subjugate it. The wood is called the 'tar-ay' (accent the last syllable), and is heavy, like mahogany. Whatever fat person carries a cane made of this wood is said to be sure to grow lean, no matter how stout he may have been before. Mr. Phillips, the merchant who gave me the cane, said he knew a gentleman in Yucatan who claimed to have reduced his weight from 300 pounds to 150 simply by carrying a cane from the taray tree. The reduction occupied several years, and in no way injured the health of the patient. Mr. Phillips made many inquiries among the Yucatoes, and also among the Indians, and all told the same story as to the flesh-reducing propensities of the wood. Then he concluded that I ought to have one of these canes and he ordered one; more than a year ago he told me that it was coming, but it has only just arrived, so great is the difficulty of obtaining it." I examined the cane carefully, but could find it in no wise different from many another walking stick. It is a straight stick, with a grain suggestive of black walnut or mahogany—not exactly resembling either, and yet not unlike them both. It is heavy and finely polished, and certainly is an ornamental cane for any one to carry. I asked my friend as to the effects in his case of carrying the taray. "I've only had it two days," was his reply, "and therefore cannot testify as to its anti-corpulent character. I'm going to give it a good trial, and shall hope for a satisfactory result." I was inclined to laugh incredulously at his statement, but checked myself somewhat when I remembered how frequently we find men who carry horse-chestnuts or raw potatoes in their pockets as a preventive of rheumatism, or who assert that red flannel is better than flannel of any other color for a sufferer from the same disease. The "unlucky thirteen," "unlucky Friday," and other popular superstitions rose to my mind, till I came to the conclusion that there was no occasion to ridicule my friend because he had seized upon something new in the same line.—*Exchange.*

DETECTING THE CONTAMINATION OF DRINKING WATER.—In a paper read before the Kansas State Sanitary Association, Professor Lucien I. Blake has proposed a method for determining whether

cesspools, stables, and other such things, drain into neighboring wells or not, and we think it will be useful. Professor Blake's suggestion is that chloride or carbonate of lithium be used in the place of salt. The mode of procedure is to make a solution containing about an ounce of the chemical to each quart of water, and introduce it into the suspected cesspool. After a few days, a sample of water is taken from the well and boiled down in a small porcelain dish, adding more water as that in the dish evaporates, until a quart of the water has been reduced to about half an ounce. A wire is then dipped into the water in the dish and held in the flame of a common spirit lamp. If any of the lithium is present the flame will be colored red. In all probability this red color will be obscured by the brilliant orange light due to the common salt that is always held in solution by well water to a greater or less extent; but if the flame be examined by a spectroscope the characteristic line of lithium will show itself plainly, even if the pollution is so slight that the well contains only one part of lithium in millions of water. It is true that this test requires the use of a special instrument, but most colleges and other higher institutions of learning have a spectroscope among their apparatus, and a sample of the water may be sent to the nearest available place for examination. Such an examination ought not to be expensive, since it may be made very easily. The object in using lithium instead of some more common substance is that, on account of its rarity, there is but little likelihood of the natural well water containing it. Almost all spring waters contain traces of it, but these are so minute that, except in rare instances, the natural lithium and that which filters into the well from the cesspool will not be confounded. The carbonate and chloride of lithium cost from forty to fifty cents an ounce at retail. Nine wells have been examined by this process in Lawrence, Kansas, and in one instance it was found that direct communication existed between the well and a neighboring outhouse.

ABOUT DIPHTHERIA.—At the International Medical Congress the question was asked, "How long can a diphtheritic patient furnish infectious excretions?" In reply to this it was stated that excretions were found infectious three weeks after apparent recovery,

and pieces of membrane yielded cultures fourteen weeks after discharge from the throat. Children having had the disease should, therefore, be kept from school for at least four weeks after recovery, and every article of apparel worn by them should be thoroughly disinfected. All doubtful cases of throat disease should be treated as diphtheritic until the contrary is clearly shown; by this means a danger would be averted that under any other course might be imminent.

DEATH COMES PAINLESSLY.—Many people have an idea that death is necessarily painful, even agonizing; but there is no reason whatever to suppose that death is more painful than birth. It is because in a certain proportion of cases dissolution is accompanied by a visible spasm and distortion of the countenance that the idea exists, but it is nearly as certain as anything can be that these distortions of the facial muscles are not only painless, but take place unconsciously. In many instances, too, a comatose or semi-comatose state supervenes, and it is altogether probable that more or less complete unconsciousness then prevails. We have, too, abundant evidence of people who have been nearly drowned and resuscitated, and they all agree in the statement that after a few moments of painful struggling fear and anxiety pass away, and a state of tranquility succeeds. They see the visions of green fields, and in some cases hear pleasing music, and, so far from being miserable, their sensations are delightful. But where attempts at resuscitation are successful the resuscitated persons almost invariably protest against being brought back to life, and declare that resuscitation is accompanied by physical pain and acute mental misery. Death is a fact which every man must personally experience, and consequently is of universal interest; and, as facts are facts, the wiser course is to look them squarely in the face, for necessity is coal black, and death keeps no calendar.—*Medical Herald.*

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY ELLEN FLETCHER.)

THE ROUGE WILL SHOW.—One of the loveliest of nature's gifts to woman is a beautiful complexion, but when a young woman goes to work to improve upon nature by the use of paints and powders she has made a mistake. During the Mardi Gras time in New Orleans, when the cars were crowded to their utmost by pleasure-seeking and utterly worn-out people, a young lady was swinging on the strap, whose complexion was all aglow, her cheeks most exquisitely tinted, the chin and forehead white and fair. It did look lovely, but a very practical gentleman in the car was overheard to say to another, as the young lady stepped lightly from the car step to the ground as the car stopped at her corner, "There goes a pretty girl if you're a good judge of paintings." No man or woman blames any girl for using all the simple measures in her power for the beautification of her face and form. It is one of the cardinal principles of a woman's nature to try to make herself as pretty as she can—pretty in her own eyes, and pretty in the eyes of others—but no matter how dexterously or artistically the dainty rouge may be applied, its presence is telltale, and no matter how fair she may otherwise be, the girl has lost every charm to the sensible and worldly wise when the verdict "she is painted" is decided upon her. Have your athletic exercises, your regular course of training at the gymnasium, your massage and your Turkish bath, but for mercy's sake don't have your paint pots ready for every-day use. Banish them from your dressing table, and in their stead make vigorous use of water, fresh and wholesome, and the pure, crisp air and early morning sunshine.

THE HYGIENE OF THE SKIN.—It seems time that the relation of clothing to the health of the people of temperate climates engaged in civil industries should be reviewed, and the points for investigation may be summarized thus, viz. : I. The popular and professional estimate of the hygiene of the skin is much below its real

importance. 2. The physiology of the skin cannot be largely interfered with without endangering the general health. 3. One of the influential factors in the sound health of man is to establish and maintain in his organization a resisting power to the causes of disease. 4. The tendency is to overdress, enervating the skin and curtailing its power, and thereby the power of the whole system, to resist the causes of disease. 5. A proper exposure of the surface of the body to environing low temperature is a valuable general tonic. 6. Ventilation of the skin is indispensable to good health. 7. Habit may enable one to bear wide differences in clothing under similar surroundings without detriment, and this should impress the necessity of cultivating correct habits of dress.

Dr. Hibberd.

SOUND ADVICE ABOUT EXERCISE.—The craze for severe exercise has been growing among women for the past three or four years, until now it is a question whether more injury than benefit is not derived from it. There is no doubt that women need a certain amount of exercise. The good effects of a brisk mile walk in the morning, and another before retiring at night, is undeniable. An hour's ride on horseback may be added to this, if a woman is not too delicate. The women who take the regular daily walks of from five to ten miles, and remain for hours in the saddle, on a big, powerful, hard-gaited trotter, are invariably (in this country) the slight, nervous, wiry little creatures who have not a pound of flesh to lose. Consequently, this wear and tear on their strength and nerves will in time cause a collapse, especially if this violent exercise has been adopted after living for years a life of indolence. Could stout women be persuaded to overcome the feeling of extreme fatigue which they experience after their first long walks, and continue them regularly, and at a rapid gait, as near running as possible, for a few weeks, the burden of superfluous flesh would soon be reduced, and their former activity return. The trouble is that the wrong women do the exercising. Do not carry it to extremes. Cut down your walk to two or three miles a day. Take your ride in the morning and limit it to an hour. You cannot get too much fresh air, so drive and stroll out of doors as much as you

can, but do not wear out your body and bring premature lines into your face by excessive exercise.—*New York Truth*.

SHOULD WOMEN CRY AND FAINT?—I cannot say I agree with a French physician as to the advisability of women sitting down for “a good cry” when everything seems to have gone wrong for the time being, says an English lady writer. This worthy doctor, who evidently believes that a woman should be treated as a helpless being, declares that we do ourselves a great deal of harm by trying to be brave and enduring. A woman, says he, should never try to bear pain without flinching. In fact, she should just scream and faint as much as she likes, and then she will surely get better much sooner than if she silently bore suffering. And what about our dignity, M. le Medicin? Does it become British matron to figuratively “fall of a heap” and give way to outbursts of weeping because her gown does not fit or the parlor maid has given notice? And could we ever reconcile it with our sense of self-respect to scream and kick and promptly give way to hysterics directly a neuralgic attack came on or the demon toothache claimed us for its own? No, no; we have our faults, and our nerves may be but “puir things,” yet I hope and believe that we are mentally better balanced and physically stronger than to require to have a good cry on the slightest provocation.

WHAT YOU DO WHEN YOU BLUSH.—When Dr. T. C. Minor was asked just what a blush was, and how it was caused physiologically, he laid aside his cigar, pondered deeply for a moment and spoke these wise words: “A blush is a temporary erythema and calorific effulgence of the physiognomy etiologized by the perceptiveness of the censorium when in a predicament of un-equilibrium from a sense of shame, anger, or other cause, eventuating in a paresis of the vaso-motor nervous filaments of the facial capillaries, whereby, being divested of their elasticity, are suffused with radiant, aerated, compound nutritive circulating liquid, emanating from an intimidated præcordia.” When the doctor finished a sigh of relief was heard from his audience, and they only recovered their equipoise when the doctor asked them to go over to the Grand Hotel and hear him make a speech.—*Cincinnati Commercial Gazette*.

REST A LITTLE.—Good mother, maker of numerous pies, mender of numerous hose, overseer of a great province—a household—rest a little. Have a chair by the stove, and when you peep into the oven, sit while you look, yea, even a moment after; you will work all the faster for the short change of posture. While mending, have your chair in the cosiest corner, where good light will come in, and let the sun strike upon you if possible, so that you may get the strengthening, health-giving influence of it. Drop your hands occasionally, and let them rest. Let your eye wander out through the window glass as far as possible, and rest your eyes by looking at something interesting out of door. Don't rule all the time. Drop the reins of household government for a little while, unbend yourself and sit down on the rug and play with the children, and, as it were, become again a child. Economize your strength. Sit when you can. Do not hold the baby when it can rest and grow just as well in its crib. By resting when you can, by planning the work to be done, and by being systematic and orderly in all things, a woman's work at home is more easily done.—*Living Issues.*

THE CAUSE OF HOMELY NECKS.—“The scrawny necks on American women,” said a man dressmaker, “are due as much to the high and tight collars which they have been wearing during the past six years as to anything else. The fashion was started by the Princess of Wales, who has a scar on her neck, and it was eagerly taken up here. Street gowns and jackets were fitted with tight velvet, cloth, or braided collars, and these pressed the neck so closely that when women took them off after having been in a hot room they not infrequently found them saturated with perspiration. There is no better way of reducing the flesh than this. A man can put a worsted or flannel band around his waist, take violent exercise and reduce his girth under the band rapidly and surely. The high collars which women wore had precisely this effect. Now that they have become distinctly unfashionable, I look for an improvement in the necks of New York women.”

MAKING BEDS FOR SICK PATIENTS.—First, how to make the bed: A mattress not too hard, and, if possible, on a single bed. Cover over with a sheet, tucking in well; then across the bed I put a piece of

rubber oil cloth, about a yard wide and long enough to tuck in each side; then I take a sheet, fold it once in half lengthwise and place it lengthwise over the rubber cloth, tucking it in on one side. This leaves more than is necessary to tuck in on the other side, so I draw tight across, and the surplus fold flat and put under the mattress. This I call a draw sheet, and should be placed so as to come well under the patient's hips, so that in using the bed pan, in case of a mishap, the under sheet will not get wet. Now, if the draw sheet should get soiled or wet I untuck it, and being over a piece of rubber cloth it will slip very readily. I take one side that is not folded and draw my patient to the edge of the bed. Then I go to the opposite side, take out the folded part and smooth it out. The surplus sheet in the middle of the bed I take close up to my patient's back, and with both hands press down the mattress. My patient turns over; he is on a clean sheet and without being lifted. I then go to the other side of the bed and fold in the same manner as before I had done the surplus clean portion. If there is any odor, or it is at all much soiled, I put a clean one on. In that case before turning my patient I pin to either one of the sides of the soiled sheet my clean one, tuck it in and fold, taking under my patient as before described. Often the patient is lying at the side of the bed. In that case he is moved only once. I keep a plentiful supply of pillow-cases and change often. Having an extra pillow I hold the patient's head with one arm and put the fresh pillow under with the other hand. I change my draw-sheet once or twice, whether it is soiled or not, as it makes my patient feel always refreshed. It has never yet caused any harm, and I have nursed a good many.—*Exchange.*

HOW TO AIR SLEEPING ROOMS.—To the clean and orderly housewife pure air and sunlight are two of her most useful agents in freeing the house of impurities, and at no season of the year are the windows closed tightly, no matter how cold the weather; but she is careful to protect the occupants of a room from direct draughts by adjusting a tall screen between the window, which is opened from the top at a distance which accords with the severity of the weather, and the bed. Before leaving her chamber in the morning the windows are opened, letting the fresh, pure air rush

in, expelling the impure gases which have generated during the night. Bed covers, pillows and bolster are spread over chairs where the air can circulate freely around them; the nightgown is never folded and put into the closet, or worse still in a bag or pocket as soon as taken off, but instead it is hung where it will air until the chamber is put in order. Soiled clothing is removed from the room at once and toilet articles emptied, rinsed, and set near a window to air. By the time the morning's work is finished down stairs the chambers will be well aired, and the orderly housewife will have the sweeping and dusting done, the bed-made, and all earthen toilet articles washed in hot water, wiped dry and put in their respective places, and the rooms will be pure and clean before noon.

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESSLER.)

NEATNESS IN GIRLS.—Neatness is a good thing for a girl, and if she does not learn it when she is young she never will. It takes a great deal more neatness to make a girl look well than it does to make a boy look passable. Not because a boy, to start with, is better looking than a girl, but his clothes are of a different sort, not so many colors in them; and people don't expect a boy to look so pretty as a girl. A girl that is not neatly dressed is called a sloven, and no one likes to look at her. Her face may be pretty, and her eyes bright, but if there is a spot of dirt on her cheek, and her finger ends are black with ink, and her shoes are not laced or buttoned up, and her apron is dirty, and her collar is not buttoned, and her skirt is torn, she cannot be liked. Learn to be neat, and when you have learned it it will almost take care of itself.—*Christian at Work.*

TO RELIEVE THE ITCHING OF HIVES, so distressing to children, add a teaspoonful of vinegar to a cupful of water, and bathe the parts affected.

BUCKWHEATS CATCH A TACK.—The other day a child named Bessie Sapp swallowed a large-size carpet tack, writes a Circleville correspondent of the Cincinnati *Inquirer*. Her mother, with great presence of mind, prepared some buckwheat cakes, of which the little girl ate heartily. The buckwheat adhered to the tack and prevented it from cutting as it passed through the intestines. The tack was discharged on the second day, heavily coated with the flour, and the little one has been in no way discommoded or injured by the accident.

MESSAGE IN THE TREATMENT OF CONSTIPATION IN INFANTS.—Dr. Carnitzky states that conformably to the peculiar anatomy of the abdominal organs of infants, it is necessary to modify to some extent the rules governing the practice of massage of the abdomen in adults. Since the most frequent cause of constipation in young children is a torpidity of the lower part of the large intestine, the author advises that the manipulation be confined principally to the left flank and lateral region of the abdomen. The hand should be anointed with vaseline to enable the operator to keep a firm hold of the skin. Dry massage irritates the delicate skin of a baby, and may frequently produce eczema. During the operation the child should be allowed to nurse, in order to prevent its crying and starting contraction of the abdominal muscles. The duration of the séance should be four to five minutes. The author has obtained very favorable results in both chronic and recent cases, which have yielded readily to massage without the use of purgatives.—*Annals of Gynecology and Pediatrics*.

OUR PUBLIC SCHOOLS FURNISH THE MEANS for the spread of the contagious diseases of childhood. An intelligent county superintendent of schools wrote not very long since: "Why, I have found all sorts of contagious diseases among the pupils of our schools, and the teachers apparently never taking any notice of them. I found one child so sick with scarlet fever that she could not hold her head up; I have heard children whooping with whooping-cough, and have seen them all spotted with measles, and right alongside of other pupils. This should be controlled. Directors, physicians and teachers should be able to control this matter. The principal mission of the teacher it seems to the writer, is to instill

into his pupils a reverence for their own bodies so that a generation of strong and pure men and women may be reared for the state. The truth of sanitary science will be best instilled when the teacher himself has a clear and correct knowledge of these subjects, and all Normal colleges and training schools should have a medical instructor on these points."

THE CHILD AT THE TABLE.—So long as custom and necessity render it advisable to have a child at the same table with his parents, these should fix upon a plan of action and adhere to it. Desiring to have their children looked upon as comforts and not as spoil sports, they should enforce strict obedience, exact quiet at table and inculcate stringently the once honored maxim—of late years fallen sadly into disuse and disrepute—that little boys and girls should be seen and not heard. Remembering how much easier it is to check a habit at the outset than to break it off after it is fully formed, the father and mother should watch their children's table manners and repress at once the carelessness and unpleasant tricks which seem, possibly through original sin, to come naturally to most little folk. The correct handling of spoon, fork and knife should be taught as soon as they are permitted to use these implements, and slovenliness should be rebuked and held up as a disgrace. Not least in importance is it that the father and mother should, after due consideration, establish an outline of diet for the youngsters and allow no divergence therefrom.—*Mrs. Christine Terhune Herrick.*

NEW PUBLICATIONS.

LOOKING FORWARD; For Young Men, Their Interest and Success. By Rev. George Sumner Weaver, D. D. 12mo, pp. 218. Cloth, \$1.00. New York: Fowler & Wells Company, 777 Broadway. Dr. Weaver has been a close observer of young manhood and young womanhood for many years, and written much for their counsel. In this new volume he considers the young man from many sides, and with the ripe wisdom of long experience supplies, in words that are very agreeable reading, fit suggestions of direct

practical application. The young man in relation to his physical and mental equipment, his friends, his business, his politics, his money, his habits, pleasures, reading, home, etc., etc., is passed in full review, and from no old-foggy point of view, but from the best modern vantage ground, and with a fatherly interest that has very much of the fellow sympathy that the boy's friend possesses. As a whole, the volume is one that it is a pleasure to commend.

THE BIOGRAPHY OF DIO LEWIS, A. M., M. D. By Mary F. Eastman. 12mo, pp. 398. Cloth price, \$1.50. Published by Fowler Wells Co., 777 Broadway, New York. A man who for over thirty-five years was devoted to the promulgation by voice and pen of advanced and reformatory practices in medicine, hygiene, education and social life, and whose work has produced a profound impression in the departments named, deserves the attention of a faithful biographer. The story of such a life is necessarily interesting when faithfully told, as it is in this case, by one who knew the man and honored his work. The author of the biography introduces here and there incidents, conversations and quotations from Dr. Lewis's books that are both interesting in themselves, and showing peculiar characteristics of the man to whom they relate. Altogether, the volume is a bright remembrance of a man whose sparkling talk and magnetic presence enliven and instruct us, and lead us to think and do better things.

MATERIA MEDICA AND THERAPEUTICS with especial reference to the clinical application of drugs. By John V. Shoemaker, A. M., M. D. This book is the second volume of Shoemaker's *Materia Medica, Pharmacology and Therapeutics*. It is wholly taken up with the consideration of drugs, each "remedy" being studied from three points of view, viz.: the Preparations, or *Materia Medica*; the Physiology and Toxicology, or *Pharmacology*; and, lastly, its Therapy. Dr. Shoemaker has finally brought the work to completion and now this second volume is ready for delivery. Published by F. A. Davis, medical publisher and bookseller, 1231 Filbert street, Philadelphia. The *HERALD OF HEALTH* takes no stock in drugs, but despite this fact recognizes the vast amount of labor and research spent upon this volume.

FEVER: Its Pathology and Treatment by Antipyretics. By Hobart Amory Hare, M.D., B.Sc. Publisher: F. A. Davis, Philadelphia and London. This work forms No. 10 of the Physicians' and Students' Ready Reference Series and is an enlargement of Dr. Hare's essay which was awarded the Boyston Prize of Harvard University, July, 1890.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

INGROWING TOE NAILS.—This valuable piece of information comes from Dr. Williams, the resident physician of the Pennsylvania Hospital at Philadelphia: In all cases, and even in severe forms of ingrowing toe nails, where one would be disposed to think that the only procedure would be to remove a portion of the offending nail, together with the matrix or bed of the nail, we resorted to the simple method of packing the ingrowing portion of the nail with cotton. After the nail has been well packed, a few drops of the tincture of chloride of iron are allowed to soak into the cotton. The iron acts as an astringent, hardening the usually very tender and sensitive granulations; it also deadens pain to a great extent, and by its stimulating action causes healthy tissue to form rapidly. The packing is repeated three times weekly, and at the end of one or two weeks the use of the iron may be discontinued. The nail, however, is to be well packed with cotton until the ingrowing portion has grown out and is able to be properly trimmed. In trimming the nails one should be careful to cut them straight across, and not to carry the scissors deep down into the corners of the nail, as so many are apt to do. I have seen some of the worst cases of ingrowing toe nail cured by following the above plan of treatment.

GOOD SUGGESTIONS FOR DYSPEPTICS.—A writer, evidently of a practical turn of mind, tells how easily the wakeful dyspeptic can be made to slip off into the land of dreams. He says: "The dys-

peptic, of course, eats a light supper, may resort to the use of a towel, wet with tepid water and covered with a dry cloth, the whole then applied to the pit of the stomach. Before the sufferer knows it she will float into shadow land, such is the sympathy between the organs of digestion and the brain. Owing to the position of the stomach, a light sleeper ought to sleep on the right side instead of the left, never on the back. If there is a tendency to cold feet, a thin woollen blanket may line the lower third of the bed. The limbs ought not to be greatly flexed, a position which prevents free circulation, and they should rest one upon the other lightly. The night light, where used, ought to be a tiny taper, and not gas or kerosene, both of which devitalize the air. A darkened room is the best. Nature puts out her light and draws the curtain of darkness for a purpose. With good habits, physical and mental, and a determination not to deal with anodynes, sleep may be won from its shyest lair to watch over the restless pillow."

DRINK FOR HEATED WORKERS.—Speaking of oatmeal, a contemporary remarks that "a very good drink is made by putting about two spoonfuls of the meal into a tumbler of water." The Western hunters long ago considered it the best of drinks, as it is at once nourishing and satisfying, yet unstimulative. It is popular in the Brooklyn navy yard, two and a-half pounds of oatmeal being put into a pail of moderately cool water. It is much better than the ordinary mixtures of vinegar and molasses with water, which farmers use in the haying or harvest field. A wide and long experience, especially in Europe, warrants strong praises of oatmeal and water as a summer drink for men engaged at hot and laborious occupations. While not yet used by the workmen at all the rolling mill and blast furnaces, it is more or less largely drank in the rolling mills, blast furnaces and glass works throughout the United States, while in England, Wales and Scotland it is even more popular as a working drink by those engaged at hot and toilsome labors than with workers in this country. It is far more strengthening to sustain the toiler through continued exertion amid a high temperature than the stimulating beers and ales which are frequently, and in some places customarily, resorted to by men in these occupations; while it matters

not what heat the workman must undergo, he may consume any quantity of the oatmeal water without any injurious consequence whatever. A little over a pound of oatmeal to a gallon of water makes this most excellent beverage, which the more temperate among foreign iron workers greatly use, and which they assert much surpasses as a regular drink all found in ale, beer or porter.

TO FUMIGATE A ROOM.—The simplest way to fumigate a room is to heat an iron shovel very hot, and then pour vinegar upon it drop by drop. The steam arising from this is a disinfectant. Doors or windows should be opened that it may escape.

KEEPING THE SCALP CLEAN.—Combing with a fine-tooth comb and wetting the scalp every day are practices which induce scalp disease and create dandruff. The fine comb should be used only occasionally, and that not enough to irritate the skin. The head should be washed carefully with soap and water at least once a week, and if one is working in places where there is a great deal of dust in the air this process should be gone through with oftener. Too much water closes up the oil glands of the scalp, and makes the head dry and hard. Premature baldness and dandruff follow. If in spite of all this the scalp is still too dry, an occasional application of a little hair oil or sweet oil may be used, but nature as a rule supplies sufficient oil for all needful purposes. Water and oil applied freely to the hair make a filthy and unpleasant head of hair, and it should be avoided as much as possible.

THE BEAUTY SLEEP.—If you want to keep your beauty intact have plenty of sleep. Want of proper rest will age a woman quite as much as anxiety. A certain lady high in the social world makes it a rule to stay in bed one day a week in order to sleep off all feeling of fatigue. Women who believe in the "beauty sleep," and get two hours' sleep every night before twelve, manage to keep fresh and unwrinkled up to thirty-five. It's seven hours for a man, eight for a woman, and nine for a fool, according to the old saying; but many ambitious women complain that they have to do with six hours' sleep, as their social and other duties are so heavy. Women can stand late hours better than girls. Many women make it a rule to have a nap every afternoon.

RED EYELIDS (F. M. G.)—If troubled with red eyelids give them a hot bath just before going to bed, laving them with the hands. In the morning always give the eyes another good bathing, rubbing gently from the outer corners toward the nose. Many people carelessly pass over the eyes while washing the face, but they deserve and need great care.

RELIEF FROM PRICKLY HEAT.—In many persons the eruption known as prickly heat comes from the corrosive action of the acid perspiration. It is worse whenever the clothing has an opportunity to rub the skin. In cases of persons having delicate or thin skins much relief may often be obtained by applying a lather of soap and letting it dry in. The soap is sufficiently alkaline in its nature to neutralize the acid of the perspiration and stop its corroding effect. The soap used should be of the finest kind.

THE AVERAGE LENGTH OF A MAN'S STRIDE.—Quetelet estimates the average length of a man's stride at $31\frac{1}{2}$ inches, and the distance an average traveler can cover at this rate at 7,158 yards an hour, or 119 yards a minute. The number of strides would be 7,500 an hour, or 125 a minute. The length of the strides in the various European armies is as follows: In the German army it is $31\frac{1}{2}$ inches, with a cadence of 112 steps per minute; in the Austrian army $29\frac{1}{2}$ inches, with a cadence of from 115 to 130 per minute; in the Italian army $29\frac{1}{2}$ inches, with a cadence of 120 per minute; in the French army $29\frac{1}{2}$ inches, with a cadence of 115 per minute; in the British army 30 inches, with a cadence of 116 per minute.

DISINFECTION BY SULPHUR.—The general plan employed in disinfection of the atmosphere, together with the surroundings in the room, is by no means of sulphurous acid gas, secured by the combustion of sulphur. The sulphur, in powder or small fragments, is placed in a shallow iron pan (about three pounds for each 1,000 cubic feet of air space), which, after being moistened with alcohol, is ignited, all measures for thorough closing of every aperture in the room having been previously taken. In order to guard against fire, it is advised that the pan should be set upon a couple of

bricks in a tub partly filled with water. After the room has been thoroughly fumigated the walls should then be washed with a disinfecting solution, such as that referred to for use in immersing clothes previously to their being boiled.

OUR RULES FOR GOOD HEALTH.

1. Be regular with you habits.
2. If possible go to bed at the same hour every night.
3. Rise in the morning soon after you are awake.
4. A sponge bath of cold or tepid water should be followed by friction with towel or hand.
5. Eat plain food.
6. Begin your morning meal with fruit.
7. Don't go to work immediately after eating.
8. Be moderate in the use of liquids at all seasons.
9. It is safer to filter and boil drinking water.
10. Exercise in open air whenever the weather permits.
11. In malarious districts do your walking in the middle of the day.
12. Keep the feet comfortable and well protected.
13. Wear woolen clothing the year round.

THE HERALD OF HEALTH.

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"EATING FOR STRENGTH,"

OR,

FOOD and DIET IN THEIR RELATION TO HEALTH and WORK,

TOGETHER WITH

SEVERAL HUNDRED RECIPES FOR WHOLESOME FOODS AND DRINKS.

By **M. L. HOLBROOK, M.D.,**

PROFESSOR OF HYGIENE IN THE NEW YORK MEDICAL COLLEGE AND HOSPITAL FOR WOMEN, AUTHOR OF "HYGIENE OF THE BRAIN,"

"HOW TO STRENGTHEN THE MEMORY," ETC., ETC.

The first edition of this work was most flatteringly received everywhere, and its sale large. This new edition, mostly re-written and enlarged, becomes really a new work. Many new subjects have been introduced and treated at length. The aid of a food chemist has been called in to prepare tables showing us what articles contain the elements of food demanded and their proportions to the bodily needs, in work or at rest. These tables are an education on the food question of themselves, as are also the tables showing the comparative cost of the nourishment in different articles of diet. No one can read them without being delighted. By studying them much expense can be saved and the health improved. The tables of analyses of different foods will also meet a want often felt. The chapters on fruit and its uses, and especially on the apple and on the grape and the grape cure will let in a flood of light on a very important subject. These chapters will be useful to all. Several hundred recipes for wholesome foods and drinks will also be most welcome.

PRESS NOTICES.

"The book is uncommonly apt, coming to the point without the slightest circumlocution."—*New York Tribune*

"One of the best contributions to recent hygienic literature."—*Boston Daily Advertiser*.

"What is particularly attractive about this book is the absence of all hygienic bigotry."—*Christian Register*.

"One man's mother and another man's wife send me word that these are the most wholesome and practical receipts they ever saw."—*E. R. Branson*.

"I am delighted with it."—*H. B. Baker, M. D., Secretary of Michigan State Board of Health*.

"This is one of the most interesting little books we have had the pleasure of perusing for a long time. It is eminently practical in every particular."—*American Medical Journal of St. Louis*.

"So out of the usual track, so novel, simple and truthful, that we earnestly wish the book might fall into the hands of the profession, and by them be pressed upon the attention of their patrons."—*Medical Advance, Cincinnati*.

"The part devoted to innocuous and wholesome beverages deserves warm commendation. Just such information as it contains, widely disseminated, will be a real aid to the temperance cause, better than a thousand overdrawn pictures such as we have *ad nauseum*."—*Medical and Surgical Reporter, Philadelphia*. [High authority.]

"It would, we believe, be nearly a cure for dyspepsia."—*Druggists' Circular, N. Y.*

"Its author is so immeasurably in advance of American housekeepers in general, that we hope he may be widely and frequently consulted."—*Christian Union, N. Y.*

"A treasure of information about the most important acts which can be performed by man which has our approval."—*Manufacturer and Builder, N. Y.*

SEND BY MAIL FOR \$1.00.

DR. M. L. HOLBROOK,

25 Bond Street, New York.

THE
HERALD OF HEALTH.

Forty-first Year.

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ON ELECTRICAL QUACKERY.

THE HERALD OF HEALTH has persistently, "in season and out of season," denounced quackery, wherever it could fairly get at it. In this good work of exposure we extend greeting to the *Manufacturer and Builder*, in the columns of which we find a practical article on "Electrical Quackery," containing some pointed truths. Says the writer: "Electricity is a word to conjure with. There is a something mysterious and awesome about its manifestations that excites the imagination of the untaught multitude, and prepares it to accept anything as possible when this protean agent is called upon to stand sponsor for it. It is, therefore, the most natural thing in the world that the electric field should be the very stronghold of quackery.

IT IS MOST UNFORTUNATE

that this should be the case, for, legitimately employed, electricity is at once one of the most powerful as well as beneficent curative agents known to the physician and surgeon. In several classes of physical ailments, notably in those affecting the nervous system, and in rheumatic affections, at once the most obscure in their origin and the most difficult to cure, it is almost unanimously agreed that the application of mild electric currents of an interrupted

character affords relief, and frequently brings about a permanent cure where medication has signally failed. The forms of apparatus devised for the application of the electric current have been greatly improved and brought to a condition of high efficiency, and only the prevailing ignorance of the first principles of electric science, and the pernicious habit among a large class of the people of self-dosing and self-doctoring, are responsible for the electrical quackery that flourishes in our midst in the full tide of prosperity.

IN THIS CLASSIFICATION BELONGS

the innumerable (so-called) electrical appliances for wearing upon the body—electrical pads for various organs, magnetic belts and chains, electro-magnetic shoes, and the like, to say nothing of electric combs and brushes, all and singular, claimed to possess the power of reviving the vital forces and rejuvenating the wearer. To those who may be disposed to lend a willing ear to the marvellous claims made for these paraphernalia of quackery, or to be deluded by the pictures of male and female persons bedecked with appliances from which electric sparks are being emitted with dazzling effect, we would give the advice of *Punch*—Don't! They are the veriest humbugs, and absolutely worthless for their pretended purposes.

WE ARE FULLY PREPARED TO ADMIT

that instances may be cited where some apparent benefit has been derived from these things, but such cases can be explained most rationally to be due to the influence of the imagination, and the same result would have been reached by other and equally worthless agencies, such as the wearing of amulets, talismans, and the like, which is extensively practiced among the ignorant and credulous. The safe course to all who know nothing about electricity and its laws and manifestations, and who may be tempted by the glowing accounts issued in behalf of such trumpery humbugs as those above enumerated, is to ask medical advice before yielding to temptation."

HEART DISEASE AND ITS SYMPTOMS.

THE way to discriminate between functional disorder of the heart and an actual organic disease, is to note, first, whether the abnormalities that present themselves are constant, or whether they are only detected occasionally. If the pulse is quite irregular at times, but strictly normal at others, this is evidence that the disturbance is functional, not organic. In other words, the pulse, in organic disease of the heart, is regularly irregular, at least in most valvular disorders. Moreover, if there is a peculiar murmur about the heart, owing to some diseased condition, this murmur would be present at all times. If these facts were borne in mind in making a diagnosis of the patients who have heart troubles (or think they have), fewer mistakes would be made, and often much needless anxiety on the part of the patients and friends might be avoided.

AS REGARDS TREATMENT

there is no hope of a cure in organic disease of the heart, though very much may be done to prolong the life of the patient and to make him more comfortable. Patients sometimes live many years with more or less organic disorder of the heart. Irregularities of all kinds should be avoided. The habits of life in eating, sleeping, exercise, rest, everything, should be in strict accordance with the laws of health; and the mind especially should be free from anxiety or any abnormal excitement. The patient should not dwell upon his condition, but should endeavor to take life as evenly and smoothly as possible.

BUT VERY FEW CASES OF SO-CALLED HEART DISEASE

are anything more than functional disturbance, due either to chronic dyspeptic conditions or to some other cause. In these cases we must treat the primary disorder: if the digestive organs are impaired, we must endeavor to restore them to normal conditions; if there is great nervous prostration, the treatment must be such as will build up the general health; if there are dropsical effusions about the heart, these should be absorbed, if possible; should the liver or spleen be so much enlarged as to press upon

the heart and interfere with its normal action, this enlargement or congestion should be reduced, but to bring about so desirable a result one must know the causes that have produced the congested condition. This latter is often the result of taking drug medicines, and sometimes it is a difficult matter to reduce the congestion.

ASIDE FROM CONFORMING

to strictly hygienic habits, much can often be done in the way of actual treatment: hot fomentations over the congested part, electricity properly applied, local wet compresses worn at times, thorough rubbing or massage intelligently administered,—these are some of the means or agents that can be employed in such cases.

If the patient is dyspeptic, then the treatment must be of the kind that will restore tone to the digestive organs. There are many things that will aid in this: a correct dietary, plenty of exercise in the open air, increased capacity for breathing, a certain amount of bathing and rubbing, a sufficiency of sleep, periods of rest for body and mind, cheerful surroundings, etc., etc. Many a patient has found his "heart symptoms" disappear after getting rid of his dyspeptic conditions; and he who is troubled with abnormal affections of that organ need not regard his case as hopeless until he has first ascertained whether those affections are not dependent upon some other functional disorder.—*Susanna W. Dodds, M. D., in Demorest's Magazine.*

AIR AND SUN BATHS WITH OTHER AIDS TO THE COMPLEXION.

EVERY WOMAN has known evil hours in which she grew unaccountably nervous and out of sorts, in which she was too restless to remain idle, yet too dull and heavy to absorb herself usefully in any occupation. Now, this condition is deadly in its effects upon the appearance. It makes the handsomest woman for the nonce into an ugly one. It blunts her expression and, seemingly for the moment, even her features. It coarsens her complexion; appears to make it grow thicker. Her color loses its delicacy and becomes sallow. Her eyes lose their life. It is impossible to be an even

ordinarily keen observer and not to have noticed this again and again. The more sensitive a woman's nervous organization the more apt is she to fall a prey to just such phases of temporary dis-temper. Instead of allowing them to run their course a simple remedy should be applied. It consists of no more nor less than a total disrobing

FOLLOWED BY AN AIR BATH.

Lock your doors the next time this condition declares itself and try the recipe. A woman well advanced in years, who all her life has enjoyed remarkable health and a total immunity from nervous symptoms, says a well known writer, attributed, not long since, much of her excellent physical state and freshness of appearance to this practice resorted to whenever the moments of nervous discomfort alluded to threatened an approach. Sun baths, taken in the same way, she insisted, had kept her blood pure and warm and vigorous past middle age. The practice is of such potent avail that it is a thousand pities more women should not be alive to its

HEALTH-GIVING AND BEAUTIFYING PROPERTIES.

An air bath of five or ten minutes acts as a total alterative to the oppressed, restless state of the nervous system. It does better than a bath which, if one has already been taken in the morning, cannot be always repeated with perfect safety. After the air bath dress again slowly, donning completely fresh linen and some crisp and rather new gown. The freshness of external attire is very communicative. It is infallibly soothing. Another suggestion worth careful noting when you are feeling and looking dull-eyed and ugly bears indirectly upon the value of massage. Take your hair down and moisten the scalp thoroughly with some good, but harmless hair-dressing preparation. Then with the tips of the fingers work the moisture well into the scalp and comb the hair out afterward with slow, soft, regular movements. This is excellent treatment for the hair as well as being

INCOMPARABLY REFRESHING TO THE WHOLE PERSON.

If a hair-dressing is not at hand at the moment, moisten the finger tips with a little cologne cut with water, or even with water alone. If you afterward do up the hair in some way that differs slightly

or radically from the manner customary with you, you will find suddenly that your nerves are more quiet, that your eyes have parted with their dullness and that you look altogether normal once more. The eyes lose their brilliance if they are fatigued. As a rule all people abuse their sight. There are certain things that a woman who has cause to be proud of her eyes should always avoid. One is to read while lying down. Reading one's self to sleep is of all customs the most pernicious. A book should never be taken up while in a recumbent attitude. Next, one should avoid rubbing the eyes recklessly. If there be occasion to touch them, move the finger-tip along the top of the eyeball only, and always towards the bridge of the nose, never away from it. To bathe the eyes with this movement in cold water several times a day brightens them.

WHERE THERE IS INFLAMMATION OR REDNESS

of the eyes bathe at night in vinegar and water as hot as can be borne, or during the day in a solution of fifteen drops of peppermint to a half glass of water. This will allay irritation almost immediately. Women will fall into weeping at times on small provocation. But the

TRACES OF TEARS ARE RARELY BECOMING

and the person who has allowed herself the indulgence is often in desperate straits to efface its marks. This also is effected by bathing the eyelids and nose in hot vinegar and water, or again by dabbing the face with a cloth which has previously been heated by holding it to the mouth and breathing upon it. Many a woman who has laughed at this primitive device has learned to be thankful for its efficaciousness. The first requisite for keeping the teeth and gums sound and beautiful is to eschew the use of dentifrices of whose component ingredients nothing is known.

AN EXCELLENT RECIPE FOR A HARMLESS POWDER

to be made at home is the following: Two ounces of prepared chalk, one-half ounce of pulverized white castile soap, two ounces of powdered orris root, two tablespoonfuls of powdered sugar, a few drops of oil of wintergreen added as a flavoring. A powder of this sort can be used with safety twice each day. Some women

use charcoal from time to time to whiten the teeth, but the practice cannot be recommended. Any rough or gritty substance naturally scratches the enamel, which becomes a repository in this abraded condition for tartar spots. The great point is to keep the enamel perfectly smooth, on the contrary. To remove the discolorations that will make their appearance on the most cared for teeth use a small twig of althea, cherry or other soft wood sharpened into a pencil point and rub the surface of the teeth, and the corners especially, with the same. Don't encourage yourself in brushing the teeth in warm water. Cold is a

BETTER TONIC FOR THE GUMS.

Never brush sidewise, which causes recession of the gums, but always with an up and down movement. And avoid, above all things, very stiff tooth-brushes and very large ones. The medium sizes, with soft bristles, are more healthy for the gums, and with the help of the wood pencils alluded to, will keep the teeth in perfect condition. The importance of maintaining the system in a state of absolute regularity and equilibrium as to all its physical functions, if beauty is to be secured and preserved, cannot be overrated, and yet is most often overlooked. No woman keeps a good complexion whose digestion is out of order. The liver and bowels should also operate without jar or hindrance. This is of the most imperative moment. Half a lemon, diluted in a little water and taken before breakfast, is excellent to preserve the regularity of the system. Most fruit, indeed, has this effect, taken fasting. For heat spots on the skin mix lemon juice with sweet cream and apply to the part affected.

FOR THE REMOVAL OF RINGWORMS

there is a remedy that is infallible. It is the milk from the stem of a fresh fig. The milk of a lettuce stalk is also said to be good for roughnesses and discolorations of the skin. The simplest old-fashioned remedies are very often the best for a variety of toilet purposes, and though not invariably infallible by any means, should always be tried, at least, by a prudent woman before having recourse to patented remedies of various sorts, which may be very injurious.

HABITUAL DRINKERS OF ARDENT SPIRITS are always making vain efforts to obtain more oxygen for their lungs. They frequently take deep inspirations, in the form of sighing; are apt to throw windows open on the coldest days, and sleep with the chest thinly covered, and with their hands clasped above their heads, in order to give more play for the lungs. The reason of this lies in the fact that the constant presence of more or less alcohol in the system delays the conversion of venous into arterial blood, by interfering with its power of absorbing oxygen. Thus tissue degenerations are invited, as there is insufficient oxygen to dissolve out the insoluble substances, and their accumulation causes mischief. In such persons, the superficial veins are swollen and distended, and of a deep purple tint, especially noticed on the backs of the hands, through the presence of excessive carbon; and the skin all over has a soft, characteristic feel, resembling velvet.—*Dr. Lewis in Medical World.*

MEDICAL MORPHINOMANIACS.—Dr. Rochard, who contributes to the *Temps* a letter on the need of institutions for the treatment of morphinomania in France, asserts that medical men and their auxiliaries, the chemists, constitute a good half of the total number of morphinomaniacs, though they naturally take every possible care to conceal the fact. He attributes the prevalence of this depraved habit among members of the profession and pharmacists to the facility with which they can procure the drug, and urges that, since this the case, restraint offers the one possible means of effecting a cure. He points out that in Germany and America special institutions have been devoted to the treatment of this spreading tendency, and he might have added that in England these cases are admitted to dipsimaniac asylums. In France no facilities of the kind are available, and victims to the habit are allowed to go on to the bitter end in their own homes. Suicide is a common termination, and appears to have become more frequent since the cocaine habit has been associated with the other. It was hoped at one time the introduction of the cocaine habit would prove an antidote for the morphine habit, but the reverse has proved to be the case. The effects of the two drugs are in reality

superimposed, and the result is a peculiar form of mental alienation manifesting itself by the mania of persecution and its usual concomitant, a tendency to suicide.—*Medical Press.*

THE EFFECT OF TOBACCO SMOKE ON MEAT.—Cases of poisoning due to meat which seemed thoroughly wholesome have sometimes occurred, and have remained unexplained. In the *Revue d'Hygiene* M. Bourrier, inspector of meat for Paris, describes his experiments with meat impregnated with tobacco smoke. Some thin slices of beef were exposed for a considerable time to the fumes of tobacco, and afterward offered to a dog which had been deprived of food for twelve hours. The dog, after smelling the meat, refused to eat it. Some of the meat was then cut into small pieces and concealed within bread. This the dog ate with avidity, but in twenty minutes commenced to display the most distressing symptoms, and soon died in great agony. All sorts of meat, both raw and cooked, some grilled, roasted and boiled, were exposed to tobacco smoke and then given to animals, and in all cases produced symptoms of acute poisoning. Even the process of boiling could not extract from the meat the nicotine poison. Grease and similar substances have facilities of absorption in proportion with their fineness and fluidity. Fresh killed meat is more readily impregnated, and stands in order of susceptibility as follows: pork, veal, rabbit, poultry, beef, mutton, horse. The effect also varies considerably according to the quality of the tobacco. All these experiments would seem to denote that great care should be taken not to allow smoking where foods, especially moist foods, such as meats, fats, and certain fruits, are exposed.

EFFECTS OF QUININE.—Dr. Barton, of Mississippi, in the *Memphis Journal of the Medical Science*, charged that malarial hematuria, a disease prevalent in the low river country of the South, was really nothing but cinchonism, due to the “absurd and criminal quantity” of quinine used. He stated that he is fresh from the teachings of late authorities in medicine, but has had to unlearn much about the use of quinine.

THE KNEES OF A MAN ARE AN INDEX, to some extent, of his character; that is, if they have not been injured. A strong char-

acter is accompanied with a strong walk. A weak character is shown in the weak knees, and the shilly-shallying, scraping walk. If one should desire the performance of a deed which requires nerve and perseverance, he would never trust it to a man who drags his legs about as if they were made of lead, or half asleep. If you want to measure a man's character, and have not the time to scrutinize and analyze his features, and through them the soul, study his nether extremities and how he uses them. You will get from his legs in action, and sometimes from his legs in repose, the general outline of his being.

EARTHENWARE IN COOKING.—The flavor of food baked or boiled in earthenware is said by those who have made the experiment to be far superior to that of vegetable or animal food cooked in the same way in iron vessels, for the reason that iron is a conductor of heat, while earthenware is a non-conductor; consequently, food cooked in the latter is rarely ever burned, the degree of heat not varying perceptibly during the process of cooking, thus preserving the flavor of what is cooked, as well as uniformity throughout the substance of the meat, vegetables or grains, until the process of cooking is completed. So earthenware takes the premium, as it deserves to, and those who have found out how much better they can do their cooking in these vessels than in ironware, give pots and kettles a cold shoulder often.—*Exchange.*

BATHS FOR ELDERLY PEOPLE.—I have for a long time (being now past sixty-seven) suffered from muscular rheumatism, being feverish from weakness of the muscles. I had for a long time known that old people actually dry up so that the tissues become inactive. I also have known that to use a very stiff scrubbing brush vigorously would toughen the parts and clean the skin ready for absorption, through the pores, of moisture, so that by lying in a tepid bath with the water at from 88° to 92° Fahrenheit for from a half to one hour, the body would actually absorb by weight from two to three pounds of water.

Benjamin Franklin, at about sixty, began to feel greatly the encroachments of old age, so he went to Dr. Darwin for advice. The doctor recommended to him the lukewarm bath, to be taken

twice a week. Franklin followed this advice, and very soon noted the beneficial effects of these warm baths upon his aged body. He is said to have continued their use up to within a short time of his death, which was at eighty-four, and to the very last was strong and vigorous in body and mind.

It restores elasticity and smoothness to the skin; it loosens the tissues, and thereby brings back fullness and roundness to the limbs. It prevents eruptions of the skin, and where present it removes them often, even from the face. It prevents the body giving off too much heat, which enhances nutrition.

It is well to commence with these baths as soon as the first infirmities of age begin to make themselves felt, between the fiftieth and sixtieth year. Two or three baths should be taken every week. As the water cools off, hot water must be added and the thermometer consulted.

The best time for bathing is the forenoon, about two hours after breakfast, or the afternoon, about four hours after midday meal.

After the bath the body must be well dried and rubbed with coarse towels.

Baths either too hot or too cold are dangerous to old people.—*Dr. Emerson, in Annals of Hygiene.*

IT IS EASY TO KEEP CLEAN.—Neglect of personal cleanliness is by no means confined to the poorer classes. There are numbers of well to do people who seldom or never wash, and to whom the "morning tub" is an unknown auxiliary to health and comfort. Yet it takes very little time, expense or trouble to secure ablution of the body of some sort. A hand-basin, a sponge, a shallow bath or flat tub, a piece of good white soap with no excess of alkali, a couple of gallons of water and a towel are all that are required, and the whole process need not occupy more than five minutes.

Even rubbing the body first with a dry towel will in most cases keep the skin sufficiently clean during the week and promote healthy reaction, provided a warm bath with a good soaping is taken at the close of the week. A good flesh brush is also a valuable adjunct.—*Exchange.*

EDITOR'S STUDY.

ABSTAINING FROM WATER TO REDUCE FLESH.—Manager Aronson's contract with Lillian Russell was conditional on her reducing her weight to a stipulated number of pounds. At the time the contract was signed the singer was just twenty-five pound over weight, and she went to a specialist to be trained down. It is popularly believed that the reduction in weight was accomplished by a system of regular exercise and close adherence to a very slim diet. The dieting consisted in abstaining from water and other liquids, rather than in abstinence from food. The specialist proceeded on the theory that people usually grow fat from drinking, rather than from eating. Miss Russell was allowed to eat anything she desired, but the quantity of water and other drinks allowed was fixed at a certain number of ounces a day. She began to lose flesh at once. The exercise prescribed was a daily walk of a specified distance. In addition to that, Miss Russell spent some time every day driving in the park. This was the training system which enabled her to lose twenty-five pounds in weight and to draw a salary of \$100 a night the year round.

BALDNESS DUE TO INDIGESTION.—Of all the causes of premature baldness none is so common as indigestion. Dyspepsia and weak and falling hair go hand in hand. As the one affection has increased so has the other, and not all the oil Macassar, the bear's grease of Siberia nor the cantharides of Spain will prevent a man's hair from shortening and thinning whose stomach is badly out of order. Indeed, anything which debilitates the nervous system has a weakening effect upon the scalp tissues, which shows that loss of hair may proceed from general as well as local causes.—*New York Telegram.*

FOOD BEFORE SLEEP.—Many persons, though not actually sick, keep below par in strength and general tone, says Dr. William S. Cathell in the *Maryland Medical Journal*, "and I am of the opinion that fasting during the long intervals between supper and breakfast, and especially the complete emptiness of the stomach during sleep, adds greatly to the amount of emaciation, sleeplessness and

general weakness we so often meet. Physiology teaches that in the body there is a perpetual disintegration of tissue, sleeping or waking; it is therefore logical to believe that the supply of nourishment should be somewhat continuous, especially in those who are below par, if we would counteract their emaciation and lowered degree of vitality, and as bodily exercise is suspended during sleep, with wear and tear correspondingly diminished, while digestion, assimilation and nutritive activity continue as usual, the food furnished during this period adds more than is destroyed, and increased weight and improved general vigor is the result. All beings except man are governed by natural instinct, and every being with a stomach, except man, eats before sleep, and even the human infant, guided by the same instinct, sucks frequently day and night, and if its stomach is empty for any prolonged period it cries long and loud.

“Digestion requires no interval of rest, and if the amount of food during the twenty-four hours is in quantity and quality not beyond the physiological limit, it makes no hurtful difference to the stomach how few or how short are the intervals between eating; but it does make a vast difference in the weak and emaciated one's welfare to have a modicum of food in the stomach during the time of sleep, that instead of being consumed by bodily action it may during the interval improve the lowered system, and I am fully satisfied that were the weakly, the emaciated and the sleepless to rightly take a light lunch or meal of simple, nutritious food before going to bed for a prolonged period, nine in ten of them would be thereby lifted into a better standard of health.”

WHEN WE SLEEP.—Modern physiological research proclaims sleep to be the result of a certain amount of blood being abstracted from the brain, to lie quiescent, if not dormant, in certain channels and vessels, which during the waking period are apparently empty, or at least very flabby, and in a condition, as it were, of negation. In proof of this view it is a well known fact that good, healthy, restful sleep rarely if ever takes place when the head is full of blood.

PLENTY OF AIR AT NIGHT.—It is really remarkable the prejudice which exists among persons otherwise sensible and intelligent

against night air. They consider a breath of it while sleeping as something to be carefully guarded against. Yet science has announced and experience justified the fact that at no time in the twenty-four hours is the air of a crowded city so wholesome and pure as after 11 o'clock. This is especially true during the warm spring and summer months, when the setting of the sun and the consequent cooling process which the earth immediately begins sends off vapors and exhalations in vitiating quantities. After two or three hours the atmosphere is rid of its impurities and clear to a noticeable degree. This air should come into our sleeping rooms copiously, not in a direct draught upon the bed, but for free circulation through the apartment. Happily nowadays most private houses are built with transoms to the bedrooms and it is easy to set the air moving. Such, however, as are obliged to occupy a one windowed sleeping room without a transom will find good air circulation got by lowering the window from the top and raising it from the bottom. The ventilation of the sick room is another subject in which most persons have not advanced from the old-fashioned notion that the air direct from the outer atmosphere is to be avoided. A trained nurse will tell you that she fights this obstinately-clung-to tenet in nine families out of ten to which she goes. Yet who so much needs the vitality and strengthening qualities of fresh air as a patient struggling with disease? It was refreshing to encounter a sensible mother the other day who has recently brought her two boys through scarlet fever, and hear her tell how every two or three hours she covered them up, leaving just breathing space, and filled the room with fresh air. It was doubtless an important factor in their easy convalescence and entire freedom from the too often serious aftermath of this dread disease.—*Her Point of View.*

SOME CURIOUS FACTS CONCERNING BONES.—People continually imagine that their bones are of solid mineral construction, without any feeling in them. No one who has ever had a leg or an arm cut off is likely to indulge such a mistaken notion. Comparatively speaking, little pain is felt when the flesh is being cut through, but when the bone is attacked by the saw, oh, my! “You see, as a matter of fact, there are blood vessels and nerves inside the

bones, just as there are outside. Any one who has purchased a beefsteak at the market knows about the marrow in the bone. It is the same with other animals than the beef, including human beings. Through the marrow run the nerves and blood vessels, entering the bones from the flesh without by little holes, which you can see for yourself any time by examining a skeleton or part of one. When the disease called rheumatism, which no physician understands, affects the nerves within the bones, no way has been discovered for treating it successfully. It does not do to smile when a person says that he feels a thing in his bones. Nature adapts the bony structure of various animals to their habits in a very interesting manner. Sluggish creatures like the sloth have solid bones, whereas the bones of the deer and the antelope are comparatively light, so that they may run fast, and the leg bones of the ostrich are hollow. You will find in the bones of any skeleton the application of mechanical principles which have only become known to man through the processes of laborious and long considered invention. In your own shoulder you have a most beautiful and perfect illustration of the 'ball and socket joint,' while at your elbow there is a combination of the hinge and ball and socket which in its way surpasses anything that human invention has been able to accomplish thus far."

ONIONS AND WATERCRESSES.—The watercress is a plant containing very sanitary qualities. A curious characteristic of it is that, if grown in a ferruginous stream, it absorbs into itself five times the amount of iron that any other plant does. For all anæmic constitutions it is, therefore, specially of value. But it also contains proportions of garlic and sulphur, of iodine and phosphates, and is a blood purifier, while abroad it is thought a most wholesome condiment with meat, roast or grilled. The cultivated plant is rather more easy of digestion than the wild one. Botanically the onion belongs to the lily family. The odor of the vegetable, which is what makes it so unpleasant, is due to a volatile oil, which is the same as that in garlic, though in the onion it is milder and naturally does not last so long. There are, besides, easy ways of removing at once all unpleasantness from the breath. A little parsley or a few grains of coffee, or even a

swallow or two of milk, if taken after eating, proves an effective remedy. Boiled onions are the least objectionable in regard to odor, and are as easily digested as any. The oil in the onion passes off in the water in which the vegetables are boiled, and if the kettle be kept closely covered and the water changed after they have boiled five minutes, and then again ten minutes later, there will be no odor through the house, and the onions will be white instead of gray, as they so often are. Besides being rich in flesh-forming elements, raw onions are especially good in breaking up a heavy cold; they are also stimulating to fatigued persons, and are otherwise beneficial.—*Scientific American*.

EAT MORE FRUIT.—Meat three times a day is more than average downtown dwelling human nature can endure. Functional disturbances of the liver, gall stones, renal calculi, diseases of the kidneys, dyspepsia, headache, fits of ill temper or of the blues, irritability and general absence of the joy of life are largely due to an excess of meat and other highly concentrated food. What shall we eat? We reply, eat more fruit.—*Medical Classics*.

ABOUT HEART DISEASE.—The changes which go to make up heart disease take place slowly, and go on for years without making themselves known to the victim; and in not a few cases death occurs suddenly from such disease without existence having been suspected. On the other hand, there are persons who think they have heart disease, when the constructure of that organ is perfectly healthy. They complain of bad feelings in the cardiac regions, palpitation, irregular breathing, etc., and such symptoms would naturally suggest disease. In these cases the trouble is purely nervous in character; that is, the nerves which control the workings of the heart are in some way deranged. And very generally this derangement is the result of dyspeptic trouble. Those who exhibit the signs described should turn their attention to the stomach and try and overcome them by careful attention to diet. The quantity of food taken should be no greater than health and strength demands, and only substances easily digestible should be eaten. In some people, even with fairly strong digestive powers, tea and coffee causes palpitation of the heart, hence their use is forbidden. Tobacco also gives rise to the same

symptom. Of course, this habit, and all others which tend to produce nerve weakness, should be discontinued. Where trouble with the heart is purely functional the remedy lies with the victim, and by wise restraint a cure is generally effected. In fact, medical treatment is rarely needed, except it be to tone up the system.

WOMEN AND THE HOUSEHOLD.

(CONDUCTED BY HELEN FLETCHER.)

IN THE CARE OF THE HAIR it is important to brush it thoroughly on the "wrong side." For instance, when the hair is worn rolled back from the face it should be parted and brushed, and if the coiffure is low the hair should be combed up and also well brushed. Attention to this seemingly trifling detail, and to having the scalp massage daily, will insure young, bright hair to elderly people.

TAKE CARE HOW YOU LET ANY MACHINE OIL or lubricator come in contact with a cut or scratch on your hand or arm, or serious blood poisoning may result. In the manufacture of some of these machine oils fat from diseased and decomposed animals is used. All physicians know how poisonous such matter is. The only safeguard is not to let any spot where the skin is broken be touched by the machine oil or lubricator.

KEEP THE NAILS IN TRIM.—The base of the nails presents a not less important field for the exercise of care and attention than the tips. No nail can be a handsome one which is overgrown and smothered at the lower portion by a clinging mass of skin, often dry, split and ragged from neglect. If this condition has been allowed to continue from childhood the adult person who has come to feel something of pride in his personal appearance will confront quite a task in the attempt to correct the evil; but there is nothing of this sort impossible to the persistent, careful worker. The skin should be patiently pressed back, by degrees, till the beauty of the well proportioned nail, with its charming, pearly

white crescent at the base, stands out as an adequate reward for all the effort. If a manicure set be not at hand, gentle pressure from the thumb nail of the opposite hand makes a very acceptable substitute, the field of operations being kept in good condition by frequent bathing and rubbing, especial pains being taken to remove "hang nails" or any fragments of dry skin adhering to the nails themselves.—*Good Housekeeping*.

SALT WATER FOR THE HAIR.—The hair, like every portion of the human frame, if uncared for, will go to waste and eventually drop out. This is due to a splitting of the ends of the hair, so that the interior oil duct which nourishes the hair is exposed, and the natural nourishment of the hair runs to waste, overflows upon the head, forming dandruff, which impedes the growth of the hair just as much as the tares among wheat. The best means to prevent this is a strengthening of the hair, and this can easily be accomplished by frequent cutting and the use of salt water. Have you ever noticed what bushy hair seafaring men have? Did you ever see a bald sailor? It is because their hair is in constant contact with the invigorating salt air, and is often wet with salt water. A good tonic of salt water should contain a teaspoonful of salt to a tumbler of water, and should be applied to the hair two or three times a week. The effect at the end of a month will be surprising.

A GOOD PLAN FOR KEEPING BUTTER COOL and sweet in summer is to fill a box with sand to within an inch or two of the top; sink the butter jars in the sand, then thoroughly wet the sand with cold water. Cover the box air-tight. The box may be kept in the kitchen.

FOR TENDER FEET, take two quarts of cold water and add one tablespoonful of bay rum and two tablespoonfuls of ammonia. The feet should be soaked in this for ten minutes, throwing the water upward to the knees. Rub dry with a crash towel, and the tired feeling will be gone.

COLOR AND AGE WITH WOMEN.—There are few women who know how to grow old gracefully, who suit their dress to their advancing years, and the colors they wear to the changes in their complexion. There is nothing that fades so soon as a delicate

pink and white skin. A skin which is lovely at twenty may be hopelessly sallow at thirty-five. The secret of a well dressed woman lies largely in her promptness to recognize her own physical defects, and to remedy them by the judicious cut of her gowns or choice of colors. The gamut of color becoming to a delicate youthful complexion is generally trying to a mature woman. All changes in the color of the hair and in the figure must be carefully noted, and the dress changed to meet them. Dead leaf browns, as a rule, are becoming to a complexion that has become sallow; black silk or wool is very trying, and pearl gray is not to be thought of. Shades of pure dark blue, without any purplish cast, can be worn. A transparent, blacklike net or grenadine and a brocaded black satin are far more becoming than plain black silk. Dark velvets, in rich colors, are usually becoming. The color of the eyes and the hair must also be studied, and make so many exceptions that it is nearly impossible to give many absolute rules in such a matter as this. Dark, rich shades are generally far more becoming to persons past the first flush of youth than delicate tints. Pearl gray and the ashes of roses drabs, with a pinkish tinge, so often selected, are exceedingly trying, and should never be worn except with a perfect complexion, alabaster in its clear whiteness and delicately flushed with color. Soft, creamy laces, or some relief of cream white—in some cases dead white—or black lace against the skin are very becoming where it has taken on some of the sallow tints of advancing years.

WHY MARRIAGE MAY BE A FAILURE.—One reason why marriage is so often a failure is that the average man falls in love with a woman because she has two or three of the qualities which he attributes to the ideal woman, and never gets over blaming her afterwards because she doesn't have the rest. Women don't make any such mistake. They don't expect to find in the average man any of the qualities possessed by their ideal, and they are seldom disappointed.

SMILE WITH YOUR EYES.—There is one big "don't" which nine-tenths of womankind might with advantage hang over their dressing tables, and it is this: "Don't smile perpetually." Is there anything more wearisome than the person who ceaselessly ex-

pands and contracts the lips over the teeth, without mirth or meaning, for that is what the continual smile eventually becomes? Let any woman stand before the mirror and attempt to produce an animated smile of welcome. She will be surprised at the witless grimace that will respond. That is what smiling is with no soul behind it. Learn to smile with the eye and keep the mouth and facial lines in repose. We speak of the pleasing gravity of the orientals. This is the secret of it—a kindly light in the eye, with a quiet expression of the face. There is no copyright upon it. Let her and him who will imitate it.

BLONDE VERSUS BRUNETTE.—A statistical inquiry undertaken by Dr. Beddoe has brought out the curious fact that in England a brunette has ten chances of being wedded to nine chances if she is a blonde, and the English women are gradually losing their fairness of skin and hair in darker types, simply because men persist in selecting the darker haired women for wives. The same thing is happening in Germany, France and Switzerland, and it would seem that the reign of the fair haired belle is doomed.

MOTHERS AND THE NURSERY.

(CONDUCTED BY MRS. F. C. PRESSLER.)

DIET AND IMPURITY.—“Keep thyself pure” is God’s command. Purity is freedom from all that contaminates and defiles. Whether it shall be secured for the children depends largely upon the care taken of them by the parents. There seems to be a close connection between cleanliness and purity. God’s way of teaching purity to his ancient people (rather his way of making it an ingrained part of their nature), was by the washings in clean water; the robes of the priests of “fine linen clean and white;” the perfect cleanliness of all vessels used in his sanctuary; the “without spot or blemish” required of every sacrifice offered to him. Similar means will

teach the same lesson in our homes. See that the child's skin is always kept clean by bathing in pure water; that its clothes, no matter how coarse and patched, are clean and whole; that the dishes from which it eats, and the bed in which it sleeps, are clean. Dirt and indecency seems to be twin brothers.—*Mary Allen West.*

INFANT EXERCISE.—An English physician of great eminence has just given us his opinion about proper exercise for children. He says: "In the child the physiological craving for movement shows itself with the unrestrained freedom of the natural animal. If a healthy baby is allowed to have free play of its limbs it will go through a series of improvised acrobatic performances, twisting its limbs and turning them into knots that might excite the envy of a professional contortionist." It is an excellent plan to give an infant muscular freedom for some time every day; it should be disincumbered of any superfluous clothing, and laid on a rug of some soft material on the floor, and allowed to kick and throw itself to its heart's content. On the general principle, apparently, that every natural tendency is the prompting of the evil spirit, it used to be the universal custom to restrain the movements of infants' limbs by swathing them in innumerable bandages, as if they were diminutive mummies. With the eager life within them thus "cabin'd, cribbed, confined" the poor little things must have been mere bundles of helpless misery. As the child grows older the boisterousness with which it romps may be taken as a pretty sure index of its health. But by long continued confinement and restraint—that is, by being made to live under totally unnatural conditions—this wholesome exuberance of vitality may be lost, and give place to listlessness and even positive dislike of play.

DON'TS FOR YOUNG MOTHERS.—Fannie L. Fancher in *Ladies' Home Journal*: Don't do everything for the baby that everybody recommends.

Don't dose it with soothing syrup.

Don't give peppermint teas for its nerves.

Don't worry and fret yourself ill, then expect a "good baby."

Don't give tapioca, cornstarch or potatoes, since, without thorough mastication, starchy viands are difficult to digest.

Don't give meats of any kind.

Don't fail to form, early in little life, a habit of regularity in nursing—from one to two hours is sufficiently often during the first few months. If you observe this rule there would be no need of the following:

Don't offer nature's fount every time the baby cries. A too full stomach is doubtless the cause of its pain.

Don't use the baby foods advertised unless recommended by those who have proved their merits.

Don't bind too tightly; nature will keep the baby from falling apart.

Don't dose with castor oil; but for constipation gently rub the abdomen. If delicate and emaciated, anointing with olive oil, after the usual bath, will prove beneficial.

Don't forget to give a drink of cold water at intervals, if teething; it is very grateful to the fevered gums.

Don't allow a child to tear or destroy anything for amusement. I have seen mothers give old papers and books to their babies, thereby teaching a wholesale destruction of such things.

WHY BABIES CRY.—A baby does not cry aimlessly. If there is a pin in his flesh, if his stomach is full of wind, if he has indigestion, cold feet or a headache he will cry long and loud. He will cry, too, if he is hungry, thirsty, sleepy, angry, hot or cold. The colicky cry is loud, emphatic and impressive; it has a businesslike, imperative ring to it that calls for immediate and remedial attention.

When the brain is affected the cry is sharp and shrill, amounting to a shriek at times, and is indicative of intense and unbearable pain. A cry of this sort is positively agonizing to the listeners, for there is no mistaking the pain felt by the little one.

Then there is the teething cry—a pitiful, incessant, unremitting little whine that is at times incisive and petulant, and accompanied by restlessness and ill temper. The hungry cry is a bawl, vehement, eager, urgent and impatient.

The sleepy cry is something of a wail, but not tearful as a rule. The child is frequently sweet tempered, though indifferent, generally nervous and heavy eyed. The vicious cry, caused by re-

straint or disappointment, is noisy, clamorous, lusty and rebellious; there is more volume of voice than tears, the quality and size of the tone depending upon the anger of the little one.

It is a good test of the condition of the respiratory organs, and can be maintained for hours by a strong, healthy child. If it has inherited the willful, domineering traits of a parent or grandparent, it may throw itself on the floor, kick, scream and roll about for variety and keep up the howl until the opponent yields or it has exhausted its lung power.

Thousands of times pins are the cause of infantile outbursts. No baby will cry if it is well and happy. Crying is a demonstration of suffering, discomfort, neglect or hereditary viciousness.—*J. W. Dowling, M. D.*

A DAILY BATH MUST EVER CONTRIBUTE to health, be it in infancy or adult life. But mothers in humble circumstances quite generally find it impossible to devote as much time to nursery duties as they would wish, and so, as their children grow older, the bath is given less often. It certainly should be persisted in daily throughout the first year. After that period it may not be needed as often. But during the next two years a bath ought to be administered at least every other day.

OLIVE OIL IN THE NURSERY.—A physician of reputation calls the attention of mothers to the use of olive oil in the nursery. He says: "In a large proportion of the diseases of infancy and childhood it will be found of the greatest value. It is especially useful in all forms of bronchial disease, whether acute or chronic. It relieves the congestion of the mucous lining of the air passages, maintains an equable temperature, affords a soothing warmth, and it is without doubt highly nutritious. Prof. Von Giele of the General Hospital, Munich, taught me in 1873 the value of this oil in all kinds of chest troubles. It is better and safer than jackets of Indian meal or any of the common applications found in the nursery. "The oil should be gently warmed. Then the patient's chest should be bathed profusely with it. Afterward a strip of clean, old and soft shirting, large enough to envelope the whole chest and thoroughly saturated with the oil, should be carefully applied. Over this a larger piece of dry cotton must be firmly but

not too tightly adjusted. Inunctions will be found excellent in all cases where artificial nutrition is sought for."

FOREIGN BODIES IN THE NOSE.—Not a little danger is incurred from snuffing up accidentally articles in the nose where they get lodged, and refuse to move either one way or the other. Children are more apt to suffer from this accident than older people, but there are many cases of all ages in the hospital suffering from this complaint. The great danger is of the article remaining there so long before it is removed as to cause swelling and inflammation. The operation of removing the article after it has become very bad is simple, but it often causes great pain and a disfigurement of the face. A new way of removing such articles is given by a medical practitioner. Insert the nozzle of a rubber bag in the other nostril, and close it up tightly. In the case of a baby the bag should be squeezed when the infant is crying. In an older patient make him swallow some water, and when in the act of doing this give the bag a sudden, quick, hard squeeze. Generally the air will pass back of the foreign body, and force it out of the nostril. It is a simple way of removing such bodies from the nose, and any one can do it should such an accident happen.—*A. S. Atkinson, M. D.*

HEALTH INVENTIONS AND APPLIANCES.

TO IMPROVE THE LUNGS.—A device recently invented for the promotion of deep breathing is likely to be of value to flat-chested, round-shouldered and weak-lunged people. The device is a small belt or cord which encircles the chest at the point of its greatest expansion, and a take-up mechanism to which the ends of the belt or cord are attached. The take-up mechanism consists of a coiled spring, adapted to tighten the belt at intervals, and a train of wheels, by which the speed of the spring in taking up the belt may be regulated. Upon the exhalation of the breath, after the full expansion of the lungs, the chest returns to the size natural to it in ordinary breathing, thus leaving the belt loose. Immediately the take-up mechanism begins to gather in the slack of the

belt, which it continues to gather, and finally it tightens the belt about the chest until the pressure is uncomfortable to the wearer and compels him to take another full inspiration, thus lengthening the belt. This lengthening is accomplished by the withdrawal of the strap from the case, which act again coils the spring. The spring in turn, when the breath is exhaled and the chest resumes its natural size, again begins to gather up the slack of the belt. These processes continue as long as the device is worn. It is claimed that the use of the device induced full breaths at intervals, and thus naturally strengthens and enlarges the lungs and chest.

PUBLISHER'S DEPARTMENT.

THE ST. LOUIS HYGIENIC COLLEGE.—We would call the attention of our readers to the St. Louis Hygienic College, a notice of which appears elsewhere in our columns. The announcement for this year has just been received, and it gives evidence of steady growth. We are glad to see this college pushing its way to the front. We wish it every success; and trust the time is near at hand when we shall have a similar medical college in the East.

REPLIES TO QUESTIONS OF INTEREST.

[To save space, replies are given to correspondents with the questions omitted, as the query is always embodied in the "side heading." Only questions of general interest are answered here. Personal questions should be sent with return envelope, addressed and stamped.]

EFFECTS OF TOBACCO UPON THE STOMACH.—M. Lyon, an eminent French physician, has recently published, in the *Union Médicale*, an account of careful researches which he has carried out respecting the effects of tobacco upon the stomach. He finds that tobacco lessens the contractility of the muscles which partly compose the walls of the stomach, thus producing indigestion and dilatation of the stomach. This is an important addition to the long list of charges brought against this drug.

THE SO-CALLED COLOR CURE FOR INSANITY.—Every one knows, either by experience or hearsay, the influence of a red rag on a bull. Now it is claimed that human beings as well as cattle are sensitive to colors, and some curious reports come from Italy as to their effect on the nerves of the sick and the insane. In the mad-house at Alessandria special rooms are arranged with red or blue glass in the windows, and also red or blue paint on the walls. A violent patient is brought suddenly into a blue room, and left to the effect of that color on his nerves. One maniac was cured in an hour; another was at peace in his mind after passing a day in a room of violet. The red room is used for the commonest form of dementia—melancholy—usually accompanied by a refusal to take food. After three hours in this red room a patient afflicted in this way began to be cheerful and ask for food.

RELATIVE STRENGTH OF MEN AND WOMEN.—By means of a specially devised instrument a French scientist has carried out some experiments for determining how the average strength of the two sexes compares. The palm of the hand is placed on the instrument, and then the greatest downward pressure which the individual can give is exercised upon it, and the force thus produced is recorded by the usual clockwork device. Fifty robust men, and the same number of healthy women, both belonging to the middle class of society, with ages varying from twenty-five to forty-five years, were tested in this way by the Paris scientist. The strongest man of the company was able to produce with his right hand a pressure equivalent to eighty-five kilograms (a kilogram is rather more than two pounds), and the weakest to forty kilograms, the average being fifty-six kilograms. One curious result was arrived at; the short men were all very nearly as strong as the tall men, the average difference between equal groups of two sizes being only three kilograms. The force of the strongest women of the fifty who were selected amounted to only forty-four kilograms, and that of the weakest to sixteen kilograms, while the average was thirty-three kilograms.

HOW TO IRON OUT WKINKLES.—Wrinkles are unnecessary, says an authority who finds the secret for preventing them in "widely opened childlike eyes." The act of opening widely the upper lid

draws the skin about the lower part of the eye taut and smooth. A golden rule to prevent wrinkles: Be not unduly elated, neither be cast down; emulate the sister of charity and be always placid. Keeping the temples and muscles about the eyes well bathed with almond meal and olive oil, taking care to rub crosswise of the wrinkles, is perhaps the best "slow but sure" remedy in existence. A silken handkerchief bound together about the brow and temple is an old and good way to iron out wrinkles made by Father Time.

THE TONIC EFFECT OF BATHING.—The tonic effect of bathing is caused by the contraction of the surface blood vessels, which drives the blood back to the larger blood vessels and the heart. These react and send the blood rushing back to the skin, causing the glow which follows the bath, or ought to follow it, the free respiration and the vigorous feeling of the muscular system. The bath should always be followed by friction with the hand, a brush or a towel. The frequency with which it should be taken depends entirely on circumstances. It should be often enough to keep the pores open and the skin clean; for the skin does one-third of the breathing, and if it is clogged the lungs must do the work, and they will be over-burdened. As a rule the more rapidly a bath is taken the better will be its effects.

THAT'S SO.—We are convinced that anyone can take a little borax and water, advertise it thoroughly, give away a number of bottles to friends, and in a short time can get from some weak-minded individuals, who like to see their names in print, any number of testimonials. We never know how often these discoveries fail, and we will only learn of the thousands who have been hurried to untimely graves by the improper use of medicine "at the day of judgment, when the secrets of all" medication as well as "hearts shall be revealed." Until then the few who imagine themselves benefited by these nostrums will sound loudly their praises, while "dead men tell no tales," but they will rise in judgment.—*Dixie Doctor.*

 OUR RULES FOR GOOD HEALTH.

1. Be regular with you habits.
2. If possible go to bed at the same hour every night.
3. Rise in the morning soon after you are awake.
4. A sponge bath of cold or tepid water should be followed by friction with towel or hand.
5. Eat plain food.
6. Begin your morning meal with fruit.
7. Don't go to work immediately after eating.
8. Be moderate in the use of liquids at all seasons.
9. It is safer to filter and boil drinking water.
10. Exercise in open air whenever the weather permits.
11. In malarious districts do your walking in the middle of the day.
12. Keep the feet comfortable and well protected.
13. Wear woolen clothing the year round.
14. See that your sleeping rooms and living rooms are well ventilated, and that sewer gas does not enter them.
15. Brush your teeth at least twice a day, night and morning.
16. Don't worry, it interferes with the healthful action of the stomach.
17. You must have interesting occupation in vigorous old age. Continue to keep the brain active. Rest means rust.

THE HERALD OF HEALTH.

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THE
HERALD OF HEALTH.

Forty-first Year.

AUGUST, 1891.

No. 8.

THE HYGIENIC TREATMENT OF CONSUMPTION.

No. 12.

BY M. L. HOLBROOK, M.D.

THE WILL.

THOSE who have read the ponderous discussions in books concerning the will, and whether it is free or not, have no doubt felt more or less confusion of thought concerning the subject, and perhaps given up trying to master it. I shall not, I hope, confuse them more, but offer some simple thoughts on the subject which will be useful. What do we understand by the will and will-power? By the will is meant that power of the human mind which decides what shall and what shall not be, and then proceeds to make the decision real; to bring to pass what has been willed, or prevent what has been decided against. The will includes the choice or decision and the action. The choice must come first; without it there can be no act. But the act is as necessary as the choice. It would not be will to decide to get up at six o'clock in the morning and then lie abed till noon. Put the two together and we have an act of will. From this point of view all agree. Even Herbert Spencer, who does not believe in the freedom of the will, admits that the power of choice is free, and the act possible if not beyond our ability to perform.

In exercising the will, a wise choice is important. Crousay, who wrote more than one hundred and fifty years ago, says: "Wisdom consists in never exercising the will without having first deliberated with all possible attention, in never determining ourselves but upon very clear ideas, and in never forming a resolution but upon conclusions well demonstrated upon evidence only, without passion having the least share in them. This is the great end of philosophy, which the nearer we approach, the more we deserve the name of philosophers."

The amount of will-power in different persons varies greatly. I do not hesitate to say that there are individuals who go through life without ever exercising the will vigorously, or on any great subject; things go along with them almost automatically. But we must not from this conclude that such persons have not the faculty; they have it but do not use, do not cultivate it. It is with the will as with all other faculties, it is stronger or weaker in proportion as we use it or do not use it. To exercise the will vigorously for those who hate trouble is not easy, and those who have been brought up in the lap of luxury and never required to make any vigorous exertions find it very difficult to master themselves in this regard. Often their whole lives are failures because of it.

The amount of will-power in the same person differs greatly at different times. When one is strong and full of life and eager for activity, the will is stronger than when exhausted. After or during any severe illness, will-power is at a low ebb; there is very little of it in some acute diseases, and in many chronic ones the amount is small.

If it were not for will-force, the work of the world, its civilization, progress and greatness would soon come to naught; by its aid the world has become great, and civilization, if not all we may hope, at least something to be proud of.

The influence of the will in preventing disease is very great. We all know the power of imagination on the body, and how much fear influences it. Almost any disease can be produced by the imagination as well as cured by it. No doubt many cases of consumption are at least partly the result of fear and the imagina-

tion on a weak mind. The fear paralyses and weakens the body when the disease finds an easy entrance. In such cases, if the will could be exercised vigorously the malady vanishes. By refusing to yield to morbid fears we rise above them and conquer our weaknesses.

The value of the will for the consumptive must not be overlooked. In them it is usually, but not always, weak. It ought to be cultivated, trained, made stronger. How is this to be done?

After having fixed upon that course of life which is best, it must be pursued with care and caution to the end. Instead of sitting, or lying supinely on the back and waiting for something to happen, the will must be used to make that happen which is desired. The following suggestions may serve as aids:

1. In walking, standing or sitting, maintain the upright position. Usually these exercises and attitudes are performed automatically and without conscious will-power. Often they are badly, improperly done and the body is cramped and respiration imperfect. If the will is used to enforce correctness of attitude and movement something will be gained.
2. In deep breathing and all those exercises for the voice and lungs previously mentioned will-power will enable the patient to perform them more perfectly and with more benefit than where it is not used.
3. It will be necessary to form correct habits of eating, and especially in masticating the food well, and this will furnish a means for cultivating and strengthening the will.
4. There will be met many obstacles which must be overcome, many discouragements which only a well disciplined will can master. If the will is turned on, so to say, when these difficulties arise, many of them will vanish.
5. By a vigorous exercise of will-power at the proper time a cold can often be prevented. I have already stated that consumption usually begins with a cold. At the very initiatory moment of taking one a vigorous use of the will may prevent it.
6. So, too, the cough so wearing to the consumptive may often be greatly modified or held in check by will-power. We all know the influence of the body upon the mind, but the influence of the

mind through the will on the body is still greater and may prevent a cough if rightly used.

The will may be used to injury as well as benefit. It may be used to carry out decisions that are wrong. Then it becomes a power for evil and destroys instead of saves.

The will may be of the utmost value in breaking off bad habits and forming good ones. Indeed, I do not see how either can be done without it. The man or the woman whose life is largely governed by feeling, impulse and passion wastes an enormous amount of energy on matters of little or no account. But if by patient watchfulness over himself, and by practice in right-doing, he succeeds in regulating his expenditure of energy and forcing it into right channels, he has certainly made an enormous gain. This, however, cannot be done by self-inspection, or by good resolutions, but only by doing as well as thinking. If it were possible for one to form in his mind an ideal, or, what is the same thing, an absolutely correct plan for his daily life, and were to act on this plan constantly, he might in the end become a perfect human being, for he would form habits of action which would finally become instincts or nearly so. The DOING would create habits which would be beneficial, but will-force would be required until the channels for the flow of nervous force to work without friction had become established, which is not the case before they have been exercised.

The tissues and the organs of the body contract habits which if not normal become diseases. The mucous membrane of the nose, throat and bronchial passages, after a few colds have affected them, form the habit of secreting abnormal quantities of matter which may be kept up for life. To a great extent these habits of the tissues are involuntary, but I am not so sure that if we knew how, we might control them by self-suggestion and the proper exercise of the will. Something akin to this is done by the mind cure devotees. They utterly ignore diseases, or the habits of the body and its organs, and suggest to themselves that the opposite or health is the true state, and often in time it becomes so. I need not here enter into a further discussion of this matter.

The will often becomes degenerate. It is best illustrated by cases of the morphine habit, or inebriety. There is certainly no true freedom of the will in such cases, for there is practically no will at all. When the moral and intellectual nature of man becomes greatly weakened by dissipation, or by disease, the will unfortunately degenerates at the same time. So great danger are we all in in this respect, that it is of the utmost importance for us to guard against everything that leads to these results with all our powers.

In cultivating the will, we need the aid of good friends and helpers who will not counteract our good resolutions or drag us down, but often we cannot have such help. In this case self-reliance is absolutely essential. Without it there is not much to be hoped for or much to be gained.

NOTES CONCERNING HEALTH.

BY THE EDITOR.

A GOOD CLIMATE FOR CONSUMPTIVES.—D. D. M. writes a very interesting letter to the *Post* concerning Florence, Arizona, in which he says: But Florence has its attractive features. Among them are its beautiful shade trees of pepper and Chinese umbrella, that line either side of the principal streets from one end to the other and offer protection from the sun. The streets are also irrigated by miniature streams of water that keep the gutters cleansed and supply the gardens and orchards. The town is situated on a plateau or mesa, about half a mile from the Gila Mines. It has an elevation of 1,450 feet above sea level, and has the reputation of being one of the most healthful places on the Pacific slope. People who come here in search of relief from lung and throat diseases are said to derive great benefit, and unless too far gone they are almost invariably cured by a year's residence. The Mexican population that formerly preponderated is rapidly disappearing, and its place is filled with Americans of energy and progressive

ideas. The people are especially proud of their schools. It is said by those in a position to know that there is more than an average refinement and cultivation among the citizens.

The writer also asserts that as a fruit region it is destined to take a front rank, as nearly every description of fruit grows in profusion, including grapes, figs, lemons, oranges, limes, olives. The peaches, pears, apricots and quinces are not equalled by any in the United States, and bear the second year if well watered, as do also soft shell almonds. The olive oil is of very fine flavor. If any of our subscribers know about this place we should be glad to hear from them. We have always supposed this region very hot.

PURE WATER.—The vast importance of pure water was never more fully appreciated by intelligent people than to-day, and yet a majority of us are more or less frequently subjected to the danger of using that which is foul. This is particularly the case with the people of Philadelphia. The Schuylkill, from which its supply is drawn, is practically a sewer, for the many towns along its bank for thirty or forty miles empty their filth and refuse into it. If it were not for the capacity of running water to purify itself it could not be used with any degree of safety, and no one knows how much harm it does to health by its constant use in its present condition. If pure water could be supplied to all the cities, there would be less demand for beers and other alcoholic drinks, as well as mineral waters and other more or less injurious cheap stuff, out of which fortunes are often made.

THE CHILDREN OF THE LOWER CLASSES.—The children of the lower classes, in large cities, have a hard time, but some of them have the good fortune to fall into good hands and receive as much benefit, sometimes more, than the children of the rich. We read that "The managers of the Jewish Manual Training School in Chicago are greatly pleased with the results of their first year's work just closed. The institution was built in the Jewish quarter. Its object was to give the children of the thousands of poor and ignorant Hebrews that have flocked from Europe to Chicago during the past few years on education that would enable them to earn their living in this country. The school was opened last October.

Fifteen hundred children demanded admission, but only the poorest were received. Of these, 900 have been in constant attendance during the year." The training given them is in some respects superior to that given in the public schools.

In dealing with the children of the lower classes we should never forget that in all cases the parents should, so far as in their power, be made responsible for the care and education of their own children. If it is made easy for them to shirk the responsibilities of parentage by throwing the care of their offspring on the State or society; they will go on bringing feeble and rickety children into the world for others to support, which is an evil, for it helps to populate the world with the less capable and lowers the standard of the race. The responsibilities of parentage are great, and it is a wise provision of nature that this is so, otherwise progress would be much lower than it is, and we do wrong if we render it any less sacred than it is by allowing parents to avoid these responsibilities by putting them on others.

NEW USE FOR THE SPINNING WHEEL.—The spinning wheel, so familiar an object in every household in former generations, has at last become a hygienic agent. In an asylum for the insane in Toronto, Canada, where are many Irish and Scotch patients who had been accustomed to spin in early life, it has been used with excellent results. The yarn is knit into goods for the use of the poor patients. In an asylum in Worcester, Conn., it has also been used. Mrs. Caroline N. Dall, speaking of it, says: "Among the inmates was a colored woman, of stately and graceful presence, who had been born an African princess. She had gone first to the West India Islands, and, after being brought to Massachusetts, became insane. She spun with a distaff, and the little children of the family and their playmates used to beg her to spin for them."

It is not only as an occupation that spinning is useful to the patient. When the large wheel is used and the patient walks back and forth, with head and shoulders erect, the exercise has a most beneficial effect upon the health.

THE COWARDICE OF OUR TIME.—Dr. Seiligmuller, a German neurologist, speaking in the *Deutsche Review* of the use of narcot-

can do this and receive almost, if not quite, the same benefit.

VIGOR IN THE BATH TUB.—Nellie Burns, in the *Country Gentleman*, says: I truly believe there is no other agency so good for recuperating the human system from the effects of work and heat during the hot weather as the all-over bath. And no one needs more the benefit of this free stimulant of nature than the hard-working farmer and his wife. He comes from the field at night, tired. His clothing is saturated with perspiration, and perfumed by the attending foul odor. To go to sleep in this condition is uncomfortable, unhealthful, and not neat. And yet this is what many do, and when continued for weeks the enervating influence on the system is sure to be felt.

Now, instead of going to bed in such a condition, the tired farmer should be refreshed by a thorough bath, and fresh clothing should be worn during the night. (The day clothing should be hung up in an outer room to air and dry). Now behold what this bath does: It induces sleep, a sound, sweet, restful sleep. It has a soothing influence on the disturbed nerves throughout the tired body. It is quieting, refreshing, invigorating; and under its influence, on arising in the morning, the body is free from that stiff, tired feeling, which even sleep does not always banish from those who labor hard.

But to no one does this daily, all-over bath give such benefit as to the worn-out housewife. Confined as she is in the warm rooms at such heating work as washing, ironing and baking, and such nerve-wearing duties as caring for a baby and little children, and listening to their frequent cries, she often becomes so nervous and tired by the time the day is over, that often in her secret soul she doubts if life is worth so hard a struggle. To such ones I recommend earnestly the all-over bath before retiring, occasionally throwing a handful of salt in the water as an added stimulant. Don fresh sleeping garments, and see if comfort and fresh life are not to be found in this simple agency.

An abundance of underwear for summer use, so that frequent changes may be made, is a necessity, both for health and comfort. Although this makes the washings larger they are no harder, as the garments are less soiled than when worn longer.

WASHING FRUIT BEFORE EATING IT.—The *Journal de la Santé* says: The following curious instance is reported by M. Schnirer of the ease with which consumption germs may be disseminated. While at work one day in the laboratory of Weichselbaum he sent for some grapes to eat. The fruit had been kept for some time in a basket outside the laboratory, and was covered with dust, so that the water in which it was washed was black. On examining it he reflected that, inasmuch as the neighboring street was traversed by consumptive patients going to the clinic, the dust probably was charged with tubercle bacilli. To settle this M. Schnirer injected into three guinea pigs ten cub. centem. of the water in which the grapes had been washed. One animal died in two days from peritonitis, the two others died on the forty-eighth and fifty-eighth days respectively, presenting marked tuberculous lesions, especially at the place of injection. The water in which the grapes had been washed was taken from the faucet, and the glass containing it had been sterilized; neither the boy who had brought the grapes, nor the merchant who had sold them, was consumptive. The cause of infection was beyond doubt the dust on the grapes. This experiment illustrates the danger arising from the dissemination of desiccated tuberculous sputa in the air.

THE HYGIENIC VALUE OF SINGING.—The *Tribune* says: A great deal is now being said about the hygienic value of singing and the physical gain of training a child's voice early, even though he show no special aptitude for singing. A writer on this subject instances the vigorous health of the nuns, who take very little exercise and are shut up within doors most of the time, but who seem to gain from their continual singing an equivalent for the outdoor exercise they are denied.

This whole subject, with practical illustrations, will be fully set forth in our new work on the hygienic treatment of consumption, to appear in October.

HEALTH AND WORKING HABITS OF A DISTINGUISHED EDUCATOR.

W. S. TYLER, Professor of Greek in Amherst College for over half a century, has given for the *HERALD OF HEALTH* a very interesting account of his health and working habits, as follows:

AMHERST COLLEGE,
AMHERST, MASS., July 11, 1891. }

DR. M. L. HOLBROOK.

Dear Sir: In answer to your letter asking me to give some account of my health, working habits, etc., for the *HERALD OF HEALTH*, let me say that there is nothing remarkable about my life, except that it has been a long one, and, though not free from trials and troubles, yet, on the whole, increasingly healthy, hearty and happy to the age of more than fourscore years. I am indebted to my parents for a good constitution and early training on the farm and in a Christian home; to Amherst College for a wise and wholesome physical, intellectual and moral education; to an excellent wife for the best possible care of my health and more than fifty years of happy married life, and to my Heavenly Father for his blessing on it and in it all, without which all our toils and cares are unavailing.

My life as a professor has been regular and methodical as the ringing of the college bell by which I have been called to morning prayers and one, two or three daily recitations. Besides the preparation of my daily lessons and lectures, which I never fail to review and renew as often as from year to year they are repeated, I have habitually devoted the better part of every day to collateral and kindred studies, reading the Greek and Latin classics and works illustrative of them, preparing text-books for the use of schools and colleges, writing articles for the reviews, contributions to cyclopedias, papers for societies, etc., etc. I make these statements simply to show that I have been an industrious man, a diligent student, a hard worker. But I have done all my hard work in the earlier part of the day. I have done my writing chiefly in the forenoon, seldom in the afternoon, very rarely in the evening, in the night almost never.

The afternoon has been my time for reading and study of books. My evenings, when they were not occupied by meetings of various kinds, have been largely given to the family, with my wife and children. I have always kept regular hours. My reading and writing, eating and sleeping have been as regular and systematic as my study and teaching. I seldom retire later than ten o'clock, and usually rise from six to seven in the morning. I never do any study or work before breakfast. I have not been a very good sleeper, my brain has been too active and too persistent in its activity. But by persistence in regular hours and good habits I have usually succeeded in securing from six to eight hours of sleep.

I owe it perhaps to truth and in justice to the readers of my letter to say that at two different periods—in 1855 and 1869—when I was overworked and considerably debilitated, I went abroad and spent the greater part of a year each time in visiting England and Scotland, France and Germany, Italy and Greece, Egypt and the Holy Land, and returned with improved health and a new lease of life. I have made it a principle to give some part, especially of my long vacations, to change and recreation, and have been pretty regular in taking an hour or two of each day in term time, usually in the afternoon, for exercise—in my earlier life, chiefly in sawing wood, work in the garden, or other manual labor, in later years walking or driving. Living as I do half a mile from the College, I have imposed upon myself the necessity of walking or driving that distance to and fro once, generally more than once, every day. How many miles of walking or driving, usually walking, that would amount to in fifty-five years, I leave to my readers who are mathematically inclined to calculate.

Moderation in eating and drinking is my fixed habit and my perpetual pleasure. They call me a small eater. A moderate portion of substantial and nutritive food satisfies me, and I eat it with a relish. My appetite and my digestion are almost always good. I have often said that my stomach was the best part of me. I know nothing of hypocondria, almost nothing of dyspepsia or indigestion. At the same time I am not squeamish or particular in regard to my diet; I eat whatever is set before me, asking

no questions for the stomach's sake. I drink tea, coffee, cocoa and cold water, letting alone soda water, ice creams, stimulants and all the other concoctions of the apothecary's fountain. Intoxicating drinks I use only as medicines. In short, temperance, moderation in all things, industry, economy, simplicity, regular hours, steady habits, constant occupation in a worthy calling, hard work, even and faithful service. These, so far as I can judge from my own experience, with a clear conscience, a meek and quiet spirit and the blessing of God, are the main secrets of a long, healthy and happy life.

Yours very truly,

W. S. TYLER.

TOPICS OF THE MONTH.

BY THE EDITOR.

WITH this number of the HERALD OF HEALTH I take possession again of a publication which I commenced to edit in 1864, and which I parted with in December, 1886. I presume I hardly need any introduction to the readers, for during the four years' interval I have contributed many articles, indeed almost monthly, to its columns. With this mere mention I take up my pen to a work more dear to me than any labor I have ever done.—M. L. H.

INTERNATIONAL MEDICAL CONGRESS.—During July 15th and 16th was held at Prohibition Park, Staten Island, an International Medical Congress which was presided over by Dr. N. S. Davis, President of the National Temperance Hospital of Chicago. Almost a hundred papers, varying from ten minutes to an hour in length, were presented. A very large proportion of them were devoted to some medical aspect of the liquor question. It may be of interest to note that more thought was given to the question whether alcohol has any place in medicine or not than cannot be better filled by some other agent. It shows how great has been progress in this respect when we say that a majority of the physicians present took the ground that alcohol as a medicine does

nothing but harm, and that all experience in both hospital and private practice shows a larger per cent. of recoveries where it is not depended on at all for the sick. Dr. Davis said he had not prescribed alcohol once in forty years for internal use. He has a clause in his will that on his death-bed, when he may be helpless and not able to resist, it shall not be applied to his lips to prolong his life. His words were cheered vigorously. There were a good many present who said plainly that if alcohol was to be given up as a medicine because of its poisonous nature a good many other things would have to be given up also, but this part of the subject was not pressed very far.

Most of the substitutes for alcohol which were mentioned for use in case of heart failure were themselves poisons, some of them the most dangerous ones in the whole materia medica. The editor of this journal was the only one to name any which were not. First and foremost for use to strengthen the heart he named fresh air. Many a sick one's heart fails because he does not breathe enough of this first of nature's remedies. Even in pneumonia the heart may fail for want of air, and the thousands of persons who work in confined spaces in cramped positions and do not breathe enough, have weakened hearts as a result and are in danger of dying of heart failure when any great strain comes upon them.

On the whole the Convention was a success, though now and then a paper was read by some one not imbued with the spirit of the age and whose utterances would have been more appropriate a half century ago.

NATIONAL TEMPERANCE HOSPITAL.—At the Congress Dr. C. G. Davis read a paper on the National Temperance Hospital which was originated a few years ago by some members of the Women's Christian Temperance Union, in order to demonstrate that disease could be more successfully treated without than with the use of alcohol. The principles upon which it was organized were: 1. Alcohol is a poison. 2. When taken into the system it is not assimilated, but passes the round of the circulation, and is finally thrown off through the organs of excretion unchanged. 3. While passing through the body it disturbs the various physiological processes, and in this way lays the foundation for disease. 4. It

does not stimulate or strengthen, but it depresses and weakens. 5. As it is not assimilated, it cannot be a food. 6. As it disturbs every physiological process it cannot be a medicine. 7. There is no disease afflicting the body that cannot be more successfully treated without than with the use of alcohol. On this principle the hospital at Chicago is being run. During the last year it treated 140 patients and performed ninety-eight surgical operations, and its mortality was only five per cent., which is a very low rate for average hospital patients.

WOMEN DRUNKARDS.—Dr. Lucy M. Hall, who does everything well, read a very instructive paper on personal observations of the effects of alcohol in producing crime among women. These observations were made when Dr. Hall was physician to the State Reformatory for women at Sherborne, Mass. Of 204 cases examined 132 were admitted for drunkenness. More than one-half had formed habits of intemperance before they were twenty-one years old, and one-third between the ages of fifteen and twenty. The results of inebriety, Dr. Hall said, are not confined to the individual, but transmissible to the offspring of the inebriate. That is, a drunkard leaves a legacy to his or her children of a most undesirable nature. Is it any wonder that women are the greatest foes to a habit that does nothing but curse all who become slaves to it?

LA GRIPPE.—London Parliament has published a report of its investigations concerning la grippe, which has made such havoc wherever it has gone. This report proves beyond much question that the disease is eminently an infectious one. The greatest percentage of victims was found in places where a great number of persons were in close association with each other, as in the General Post-office, the Bank of England, Government offices, large shops, and schools. In prisons, where personal communication was prevented, cases were rare. Very few cases occurred among light-house keepers, deep-sea fishermen, and other persons remote from human intercourse, and all the testimony seems to be in opposition to the theory of some general miasmatic influence. It is suggested that the medium of infection is undoubtedly a microbe which enters the system through the eye, but on this point there

is as yet no certain information. The period of incubation appears to range from sixteen hours to two or, at the most, three days.

That this disease was most frequent in shops, offices and buildings where the number of persons was large was certainly true in New York, but we believe the true cause of this lay in the fact that these places were not well ventilated. In the New York Post-office, a notoriously badly ventilated building, crowded with men, the number who suffered was very large. So bad is the air here that it is a punishment for any one to be obliged to go into it and remain long. Of course it is worse in cold weather. Had the men in the Post-office been abundantly supplied with pure air, we believe they need not have had this filth disease to any considerable extent.

THE PRINCE OF WALES.—The Prince of Wales has cut a very sorry figure this year on account of his bad social habits, but on his farms much to his credit can be said. On large estates when acquired by the Prince, the houses were tumble-down hovels, and the farm laborers, who only received nine shillings a week, could not read or write, and had all sense of self-respect crushed out of them. Now everything has suffered a change, and West Newton will challenge comparison with any model village in this or any other country. The cottages are so substantial and nice, and set amid such bright gardens, that any one of moderate means quite envies the occupiers their happy lot. The church has been elaborately restored, a reading room and library erected, many miles of new road opened, and the common stretching toward Babingley has been entirely changed in appearance, and made beautiful by extensive plantations. A tall tower for the supply of water has been erected, and also a cottage hospital at Babingley.

The health conditions of the place are now so good that illness is reduced to a very low rate, the diseases of children almost stamped out and the habits of the people greatly improved. The Prince of Wales's example in this matter has been and is being followed by a great number of other land owners.

SEASIDE SANITARIUMS FOR CHILDREN.—Seaside sanitariums for orphan children are becoming quite common in this country, and

in France they are also growing in favor. The French have for a long time been very anxious about the slow growth of their population. People there do not favor large families and many children are born out of wedlock. Considerable effort is made by the Government to save the lives of this unfortunate class, for it helps to remedy the slow increase of population. One method is the establishment of sanitariums near the sea. One writer speaks of the method as follows: "One of the most effective ways of preventing infant mortality is the establishment of *marine hospitals* to bring up weak and anæmic children. In Italy the sea-coast is dotted all along by these hospital homes, and their success there has been something wonderful. The French are now following the Italian system. The sea-air is known to act in a powerful manner on weakened human organisms, and sea-water is good for the cure of weakly children. Six to eight weeks is considered enough for a child to pass at the seaside every year, except in severe cases, when they must remain longer. There are certain indications to follow in choosing a site as to climate, winds, and above all, a sandy beach with *plenty of sea-weed*. It is essential that the treatment shall not be conducted in the hap-hazard way that is practiced sometimes; on the contrary, hot, or at least warm, baths be given as needed, according to season and to the patient's wants. This is combined with *massage* and gymnastics. The food is an important question to be studied. About two hundred to three hundred yards from the beach is considered the best place for the buildings, and a three months' treatment would be best for many patients."

A much larger use of these natural sanitariums might be made in our country and no doubt will be in the future. The seaside is a perpetual delight to the young, and much of the benefit they experience is in the freedom and happiness they enjoy. At the same time sanitariums among the mountains have value for some, and their use should not be forgotten.

AN AUTUMN VACATION.—Why do we always prefer to take our vacations in hot weather? Partly, no doubt, because those in cities can spare the time best then. Business is at a standstill, the country has attractions and the city is hot, dusty, and disagree-

able. It should not be forgotten, however, that there is more benefit to be derived from an autumn vacation than at any season of the year. Then the country is a perpetual delight. The air is more bracing, the nights are cool and exertion is not so difficult to make. To those invalids who can take a rest and change as well at one season as another the autumn offers benefits well worthy of their attention.

KOCH'S LYMPH.—The career of Koch's lymph as a specific for consumption has been brief. In the short space of a few weeks it has run its course, awakened the highest hopes in the profession and among the sick, and been found wanting. Indeed it has been found worse than nothing, doing harm instead of good. Dr. L. S. Painter, of Pittsburgh, Pa., gives us the best and most vivid picture of his own experience with it. He went to Berlin to study its use, but suffering himself with tuberculosis of the vertebrae, was induced to submit to try it on himself. He entered the hospital and for three months was treated with injections in the most scientific manner. He has now returned home and expresses his opinion freely. "My experience was horrible," he said; "I am afraid they have killed me. They have killed them off in Berlin by hundreds, but now the lymph treatment is used in only two hospitals and nearly all physicians of reputation and skill have discarded it." Dr. Painter said that Prof. Virchow, who has performed hundreds of autopsies in lymph cases, has established the fact that instead of working as a cure the lymph will actually transfer tuberculosis throughout the whole system, and that it actually contains the germs of the disease which it is intended to destroy. "The only benefit I have derived from my experience," says the Doctor, "is a negative one. I intended to use it in my practice in Pittsburgh. If I had I would have killed everybody I tried it on. They are saved anyhow. But I'm afraid it has killed me." Dr. Koch is an eminent sanitarian, but he has been misled by unscientific methods which would have been regarded as criminal if practiced by anyone less eminent than himself.

A REPAST OF NUTS, ETC.—Mr. J. O. Woods, of New York, now visiting friends in London, has sent us an account of an evening reception he attended there, which may interest some readers. He

says: "We attended, the other evening, at the beautiful residence of Dr. and Mrs. Densmore, a reception, where a goodly number of ladies and gentlemen listened to a paper read by Dr. Densmore on foods. After its discussion we had a practical illustration of it in a delicious supper composed principally of natural foods—figs, dates, oranges, apples, bananas, prunes, peaches, pears, plums, grapes, sultanas, etc., etc., and a great variety of nuts. If the primitive savage enjoyed such a rich variety he made a mistake in becoming civilized down to bread and potatoes. I do not suppose the public in general will be converted to Dr. Densmore's theory, but he will accomplish good if he persuades them to the use of more fruit and vegetables. Referring to the nuts so freely presented at the repast, it may be remarked that they are a very nutritive food, and will in the future, in some part, form at least a partial substitute for flesh. With the exception of the peanut and chestnut, most of them are non-starchy and rich in both fat and albuminous matter, the latter being so important a constituent of foods. One of the dangers in choosing an non-flesh diet is in taking an excess of starch and a deficiency of albuminous matter, and the use of the non-starchy nuts may help us to correct this error.

A CRITICISM.—Mr. E. P. Powell, author of that excellent book, "Our Inheritance from God," writes in the *Open Court* a very thoughtful criticism of a new scientific text book of physiology and hygiene. The main point of the criticism to which we would call attention is in these words: "Our author begins at the brain and carefully unfolds the truth as he creeps along down the spinal cord. Excellent laws of diet and sleep and hygiene are laid down; but that the boy is a boy and the girl a girl, with specific sexual powers embodied in the nerve organism, and involving more of misery or joy than accrues individually or socially from any other source is not directly or indirectly referred to. I understand that this is not the fault of this author alone. It is the custom of our school books and schools. The custom is based on a much more general habit covering our family life. It is conceived to be indelicate to discuss a certain part of the functions with which nature has endowed us. If we could insure absolute ignorance on the sexual question until puberty the mistake would not be so

gross. But we know very well that any omission of this sort on our part is amply filled up by false and vicious information gathered freely in the common intercourse of our school system. That is, while we decline to teach science, nescience and lies are inculcated. Not one child in one thousand in the United States reaches twelve years of age without dangerous views, if not habits, involving the sexual organs and the whole nervous system. Society is undermined by the consequences of this combination of knowledge and ignorance. Wrecks not only fill our idiot and insane asylums, but others drag on as devitalized fragments of our social organism. Wives and husbands stumble ahead with broken health and beget distracted children. The possible improvement of the human race as well as the amelioration of nervous disorders depends on right knowledge being substituted for false knowledge at the outset." These are brave words, and coming from so eminent a source have received mention in some of our best religious weeklies, which in the main hold to the opinion that these delicate subjects should not be taught in school where both sexes attend. Our own opinion is that few teachers are as yet prepared to teach these subjects to mixed classes of both sexes, but it may be done separately. If any of our readers have any thoughts or any experience on this subject we will be glad to hear from them.

HOW HANLON TRAINS.—Hanlon, the famous oarsman, tells the women who read the *Ladies' Home Journal* how he fits himself for winning his races. It will be seen his methods are very severe. He says: "I arise at six or half-past six, walk one mile, running perhaps two hundred yards at a speed sufficiently to get my wind. Then I return and take a light shower-bath, after which my man rubs me down with flesh gloves, rubbing in all directions. Afterwards he goes over me with his hands and then fans me dry with a towel. I then rest for twenty minutes before sitting down to breakfast. I eat some fruit, a small steak, and drink a glass of milk and cream. After sitting around for an hour, I go for a two or three miles' walk. Then I go to my boat-house and am rubbed down again. After this I take a spin over the course, rowing from twenty-six to thirty-two strokes a minute. This is simply for exercise. The rubbing process is gone over again when I

return. For dinner, I have roast beef or mutton, sometimes a fowl, with vegetables. I rest until half-past two, take a walk and then go for another 'exercise row. Once or twice a week I take a 'speeder' over the course. One thing amateurs should bear in mind: never leave your race on the river, that is, never row six races a week before the day of the race comes. It stands to reason that no man can row as hard as he is able, each day, and be in better condition the day of the race than when he began training. More races have been lost by 'leaving the race on the river' than I can name."

SUGGESTIONS TO NURSING MOTHERS.

BY JENNIE CHANDLER.

I read the other day an article in a journal by M. A. Butler, in which she says: "Some one has said, 'There is a sense which is a common sense and a sense which is uncommon.' I am painfully aware of how much more 'uncommon sense' prevails among young mothers and old mothers, even grandmothers, upon the subjects which relate to their own bodies and of the precious ones whom God has intrusted to their care. I was calling a few days ago upon a young mother who entered to greet me with a little pink and white blossom in her arms, which had run five weeks of its earthly course and already had tasted of the 'weariness of the flesh.' The mother apologetically said—'The heat is too much for baby and me.' Both were nervous, and with the next breath she apologized for the fumes of whiskey in her breath, explaining that it was necessary for her to take whiskey punches to increase the flow of milk. When I protested saying it was injurious for both herself and child and she ran a great risk of creating a taste for liquors in her child, she replied 'I would rather take that risk than a change of diet in this hot weather.'

"Truly a most 'uncommon sense' reply to one who has studied the matter. This lovely mother desiring to do her duty to her

treasure is like unto thousands of others, intelligent upon most other subjects. Had I spoken of the latest opera or novel she could probably have given me much information; but health books were almost unknown to her.

“It seems to me the subject of tipping babies upon milk produced from whiskey is all important. I cannot refrain from a public protest against woman’s ignorance in regard to this pernicious practice of feeding them on whiskey punches. Dr. Kirk says: ‘Malt liquors, when taken by *nursing* mothers, flow readily through the system, and give an abundance of milk, *such as it is*. But that milk will even intoxicate the infant, and it is always unfavorable to the healthy development of its bodily framework.’ Any one who knows the true effect of alcohol upon the system of the human being will at once see the truth of this. No one who cares for the hardy, wholesome growth of a child will suffer it to be nursed on milk made out of beer if he can help it.”

To this I will add that I have made many tests of the quality of milk produced by ale and beer, and found, as Dr. Kirk says, it to be of an inferior quality, though these substances do increase the quantity. The true remedy for a deficient supply of milk is food. A glass of new milk from a healthy cow or goat if taken three or four times a day is often sufficient; or, better still, a nice, properly seasoned gruel of oatmeal made with milk and water. Some object to this because they do not like its taste. Well, it certainly tastes better than ale or beer. One thing the nursing mother should beware of, and that is, of spoiling her appetite by staying indoors too much. She should go out all she can. The air, and exercise and light will each do her good.

There are some other suggestions of importance. The milk of any creature is modified by the state of the mind. The best state for a healthy secretion is a tranquil, hopeful, happy one. Anger produces an irritating milk, causing greenish stools, griping and an irritation of the child’s nervous system.

Grief diminishes in a marked degree the amount of milk, and may, if long continued, make a wet nurse or artificial feeding necessary.

Anxiety will cause an almost empty condition of the glands, and

what milk there is will be of poor quality and cause a green, frothy stool.

Fear, which some mothers may have, as when the husband is intemperate or ugly, causes a knotty condition of the milk gland, an irritating milk and requires some time for recovery.

The effect of fear is illustrated by a case of a healthy wet nurse who had to take a long ride behind a pair of fretful horses which kept her in a constant state of fear for hours. At the end of the journey the abundant supply of milk had dried up and never returned. Terror instantly stops the secretion of milk.

All healthful pleasures are beneficial, all pleasures in excess are harmful.

CHIT-CHAT FOR THE LADIES.

“GREEN-STUFF.”—I have often been asked why salads, which are so nice, are so apt to disagree, and whether they can be prepared so as to be more digestible. Most people are unaccustomed to raw foods, and make a mistake in suddenly beginning to use them. Then, it must be remembered, that all the plants of the cabbage tribe (*cruciferae*) are a little difficult of digestion, when their characteristic flavor is strongly developed. The knowledge of this fact has often been useful to travelers, and it is worth while to recollect that any plant having the characteristic flower, with four sepals, four petals, and six stamens, of which four are long and two are short, may safely be used when one is hard up for a vegetable. The little plant known as scurvy-grass, which grows on rocks, and bears a white cress-like flower in March and April, saved the lives of Captain Cook’s sailors, when the lack of vegetable food gave them scurvy. The ordinary radishes and cresses, wholesome though they are to some, disagree with others who would otherwise enjoy them. My advice is boil them. Radishes should be boiled about ten minutes, being, of course, put on like other green vegetables, in plenty of salted water, and boiled without stopping, till they are done. They are tender and delicate, and resemble sea-kale in flavor. Cress, either water cress or

mustard and cress, should be prepared for cooking like spinach; that is to say, the leaves, which soon boil "squashy," must be carefully picked from the stalks, and the latter thrown away. It boils in a few minutes, the time varying a little with the age of the cress. It must be carefully drained, and chopped with butter, pepper and salt. It may be served on toast, or under a poached egg. Lettuce may be treated in the same way, but it is difficult to keep green, and since in the raw state it never disagrees with anybody, so far as I have ever heard, it seems a pity to cook it. Young onions may be easily disposed of by cooking. I cut them in lengths of three inches. The roots should be boiled for four or five minutes before adding the tops. All these things need only the one simple rule, to be put in water boiling, and keep boiling till done. Many people spoil green vegetables and serve them brown. This comes of having too little water in the pan, so that the addition of the cold leaves stops the boiling, or of the common superstition of keeping the lid off to let out the smell of cabbage, etc., whereas it should be kept on, so as to keep the steam in and keep up the boiling. I name this because it is particularly easy to spoil these little salads. Here let me mention that no one knows how good they are, who has not tried them when the young green tops are just fading, and the roots are about an inch and a quarter across. They should be taken freshly out of the ground, the tops cut off, and the roots boiled and served with butter or white sauce. They are not to be compared with the tough, strong onions, later on. Those who like green-stuff, may demur at having it boiled. People who can't eat radishes and onions should try chopped mint prepared with a little vinegar and no sugar for a breakfast relish, or very young leeks chopped in vinegar in the same way. Lettuce almost always agrees; so does parsley, which may be made the chief feature of a cold potato salad, at almost any season of the year.—*B. Lindsay, in Vegetarian Messenger.*

BOOK NOTICES.

ALCOHOLISM: ITS CAUSE AND CURE is the title of a little book of 100 pages, by Joe Brown, doctor, and published at 50 cents by E. Scott, New York. The writer seems to be a believer in the efficacy of hygienic treatment, and lays great stress on the importance of using a large amount of pure water as a drink in cases of alcoholism, to cleanse the body internally. Hot water he prefers to cold, because in it the germs of disease have been destroyed and the heat of the water takes away the craving for alcohol. Bathing in warm water, and especially the use of the Turkish bath with massage, are also advocated. Next to these remedies are good food, abundant sleep and occupation. All these agencies we know are valuable and when combined with isolation from temptation and psychical remedies, will no doubt help to restore such as are curable.

VACATION TIME, WITH HINTS ON SUMMER LIVING is a useful little work by Dr. H. S. Drayton, and published by Fowler & Wells Co. for 25 cents. The author has a timely word in favor of pure water as a drink instead of impure, which is the cause of so much disease. Impure water, especially that contaminated with decaying organic matter, is probably the most dangerous drink in the world and may cause typhoid fever, tape worms, diptheria, etc., etc. The true sanitarian will recognize the force of this. Pure water is nature's beverage. Impure water had better be boiled before it is taken into the stomach. Boiling is the cheapest and most certain mode of rendering it safe. It may be cooled and aerated afterwards and used as required.

THE ESOTERIC BASIS OF CHRISTIANITY is the title of a little pamphlet by William Kingsland, a theosophist, and published by the Society in London for 25 cents. From it we learn that the objects of the Society are:

FIRST. To form the nucleus of a Universal Brotherhood of Humanity, without distinction of race, creed, sex, caste, or color.

SECOND. To promote the study of Aryan and other Eastern literatures, religions, philosophies and sciences, and to demonstrate their importance to Humanity.

THIRD. To investigate unexplained laws of nature and the psychical powers latent in man.

The author, however, seems to us to try to do more than this, showing that reincarnation is one of its fundamental principles. It seems to us this is a step backward instead of forward, and that this doctrine will never be very generally received by Western nations. There is not, and never was, the slightest experimental proof of reincarnation.

WE have received the May and June numbers of a new German monthly, entitled "Bätter für Klinische Hydrotherapie," edited and published by Prof. Doctor Wilhelm Winternitz, of Vienna, Germany. The work is mainly devoted to an exposition of the use and methods of hydropathic and hygienic treatment of diseases.

Dr. Winternitz is a thoroughly scientific man, at the head of a large institution in Germany, and his little publication will prove of great usefulness in promoting among medical men a better knowledge of this important subject. It contains sixteen pages, is in the German language, and costs about \$2 a year.

THE ANTI-VACCINATION AND HEALTH REVIEW ENQUIRER, a monthly of sixteen pages, published in London, and devoted mainly to a crusade against compulsory vaccination, contains in its last, or July number, a contribution from J. T. Biggs, showing the results of sanitation as a substitute for vaccination in Leicester, England, in putting a stop to smallpox and also other contagious diseases. Mr. Biggs's statement is so marvelous that we give the main portion here. He says:

"In 1868-72 Leicester was better vaccinated than at any previous period of its history, no fewer than 87 per cent. of the total births being vaccinated. At that time our smallpox death-rate was an average annual of 773 per million. Vaccination has now fallen to about 3.6 per cent., but we have had no smallpox deaths for eight years.

"To what is this due? Certainly not because we have not had smallpox in the town, for since the subsidence of the great epidemic of 1871-3 we have had no less than 32 importations of smallpox from the efficiently vaccinated towns and cities of Nottingham, Birmingham, London and Sheffield, principally from the

latter. The whole of these 32 importations, which led to 114 cases of smallpox, have been successfully stamped out by the 'Leicester method' of isolation, disinfection, quarantine and general sanitation, without recourse to vaccination. From 1884 to 1888 we had 15 importations and 46 cases of smallpox, all of which were cured, there being no deaths. If the practice of vaccination had continued in full swing as in 1868-72, Leicester would have spent over \$9,000 in vaccination. The cost of quarantine, etc., was only about \$850, showing a saving between the two systems in five years of \$8,150.

"Our death-rate has fallen from 27 per 1,000 in vaccination times to 17 per 1,000 in these non-vaccination days."

Arguments like these will do more than any other to convince people that sanitation is far better than vaccination in stamping out smallpox, and we may add it is the true method of dealing with all contagious diseases.

PUBLISHER'S DEPARTMENT.

OUR subscribers will please take notice of the change of address for all letters. The editor will be glad to see and hear from them often. Those visiting the city may, when our house is not full, find accommodations with us, especially pleasant rooms.

THE HERALD OF HEALTH.

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HERALD OF HEALTH.

Forty-first Year.

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No. 9.

EFFECT OF THE MODERATE USE OF ALCOHOLIC DRINKS ON LONGEVITY.

[A paper read before the American Medical Temperance Association at Prohibition Park, New York, July 16th, 1891, by the Editor of the HERALD OF HEALTH.]

MR. PRESIDENT AND GENTLEMEN: In discussing the question of the moderate use of alcoholic beverages and its effect on longevity, one labors under some difficulties, because as yet we have no very accurate definition of what their moderate use is, and besides this, if we had a clear definition, we have not as yet sufficient statistics and facts to make out the case as I should like to present it, that is, so strong as to admit of no controversy. We define the word moderate to be temperate, within bounds, or not extreme. With this definition, I suppose any use of alcoholic drinks short of intoxication would be its moderate use; anything beyond this immoderate, or extreme. Now to the question does such a use shorten life or not? In the first place, let me consider what are the conditions of long life and how is it that many persons live to be very old.

They are these:

1. A good constitution, by which is meant one that will stand the wear and tear of daily existence without breaking. The body will be evenly but not excessively developed. In all very old people, the evidence goes to show that the heart has originally been sound, the lungs have performed their functions faithfully, digestion has been good and the nervous system, especially the one

controlling functional bodily activities, well balanced and healthful. These are the general conditions. If we examine the constitution, however, from the standpoint of a biologist, or microscopically, we shall find that those with strong ones have a large supply of living matter, or protoplasm. Living matter is the base on which the vigor, healthfulness and length of life have their foundation. If there is a large supply, the possessor will withstand the strains of life, the competitions that we must meet; will ward off disease, when with a small supply, except with great economy and care, he would not. Under the microscope the white blood corpuscles, the pus globules of an inflamed surface or part, or any epithelium that can be studied before it has lost its structure or been worn out will be seen to be loaded down with brilliant living matter. The granules are coarse and crowd on each other, and the reticulum is also large and strong.

There is as much difference between a living cell or corpuscle in a strong and a weak man as between a house well built with good material and a slender, poorly made one. Sometimes a person who seems healthy and well to the external eye shows, when a fragment or a bit of blood is examined with the lens of 500 power, defects on which we may predict a short life, unless all his resources are husbanded in the most economical manner. Now what are the effects of alcohol, moderately used, on these conditions. Let us take the organs of the body first. In a healthy man the heart beats normally. It beats as fast as it ought to beat. It needs no whip or spur to urge it on. Alcohol acts on it as a whip or spur and makes it beat faster than it should. Reasoning on general principles we are justified in saying that abnormal action of the heart, even if only slightly abnormal, kept up year after year must injure this important organ and shorten life. Experience justifies this conclusion.

2. What is the effect on the lungs and their function? The office of these organs is first to take up from the air oxygen, without which we cannot live at all, and second, to separate from the blood carbon-dioxide, and other products of transformation constantly being produced in the processes going on in the body, all of which products, excepting water, are poisonous and some of them so in a

high degree, and both of these functions of the lungs are lessened even by the moderate use of alcohol; that is, less oxygen is taken in and less carbon-dioxide thrown off.

Laboratory experiments show this conclusively. Are we justified in saying this cannot in even a small degree injure the constitution, which ends in shortening life? I think not, but even if it could be shown that life is not shortened we all know it diminishes its fullness. We live in proportion as we breath, that is, take on oxygen and throw off the waste of bodily activity, and anything that lessens this makes life less full, less complete, less perfect, if not less in length, which is if anything worse. We now and then meet persons who have lived long and used alcohol more or less extensively. We generally, though perhaps not always, find they have accomplished little in the world. If there are exceptions they can be easily explained.

If we turn to the nervous system we find still another illustration supporting our belief that alcohol shortens life, even if not used to intoxication. The healthy, well trained brain is a fountain of strength to its owner. It thinks straight and its thoughts go to the mark. The man whose brain is stimulated by alcohol never thinks quite straight. Hope is magnified and caution diminished. He often rushes into dangers that ends life abruptly or does deeds that disgrace him for ever. Can we for a moment believe that the substitution of abnormal for normal neural processes, incorrect for correct thinking, does not injure the constitution and diminish life both in quantity and quality? I for one cannot. I will not for a moment say that all total abstainers think clearly and correctly. Many of them are more or less lunny on some subjects and make extravagant statements more the result of incorrect training and imperfect knowledge, but if they do these things sober, what would they not do when even slightly under the influence of alcohol?

I might mention the effect of moderate drinking on the stomach, liver or kidneys and the blood, which are all bad, but these effects are too well known already.

I will merely quote a paragraph from Dr. Richardson on this point, who says:

“I had learned purely by experimental observation that, in its actions on the living body, this chemical substance, alcohol, deranges the constitution of the blood; unduly excites the heart and respiration; paralyses the minute blood-vessels; increases and decreases, according to the degree of its application, the functions of the digestive organs, of the liver and of the kidneys; disturbs the regularity of nervous action; lowers the animal temperature, and lessens the muscular power. Such, independently of any prejudice of party, or influence of sentiment, are the unanswerable teaching of the sternest of all evidences, the evidence of experiment, of natural fact revealed to man by experimental testing of natural phenomena. . . . It begins by destroying, it ends by destruction, and it implants organic changes which progress independently of its presence even in those who are not born.”

I will say a few words on the general effect on the protoplasm. It is here that all the harm is done. The alcohol taken into the stomach is absorbed into the blood and traverses the entire system. As the capillaries that lead directly to the brain cells, the liver cells, the epithelia of the kidneys, and pour out their plasma into these minute units of life, they pour into them at the same time the alcohol in the blood. In the brain, the alcohol goes into the brain cells together with the nutriment designed for them. Abnormal action is set up at once. We know this from the fact that the thinking is abnormal. Protoplasm is a very precious material, the most costly of anything we can name. It gradually wastes away when age comes on, when waste is greater than repair. It gradually clogs up as we grow old with the debris of the system. A brain cell of a young man of twenty is bright and beautiful as a silver dollar, but in age much of its brightness is gone. It is tattered and torn, so to say, and darkened by the sediment left in it which it cannot throw off. In the moderate drinker it is tattered much sooner. Alcohol is inimical to it, causes it to waste unduly. We ought to care for the living matter of our bodies as for this most precious treasure, for with its departure life departs. If by any manner of living we could preserve it from wasting beyond the power of the nutritive system to repair it, and if we

could keep it pure and sweet and clean, life would be prolonged indefinitely, some have claimed forever, accidents and diseases excepted.

Now how does all this harmonize with experience? Does moderate drinking *actually* shorten life, and can it be proved by stubborn facts, or are we only guessing at it, theorizing, as some will say? Let us see.

As I have already said, statistics are somewhat meagre, but it is not necessary always to wait for statistics to get at a truth. The true prophet sees often a truth long before statistics and facts have been tabulated to prove it. It is only those of less power of foresight and discrimination that need the crutch of statistics to give them assurance and support; still so far as they go they support us in every way.

1. Insurance companies, I think, universally prefer, other things being equal, abstainers to even moderate drinkers and some societies have classes for such at less cost.

2. In an English society, which has been in existence for over a quarter of a century, the death rate per 1,000 annually among the abstainers is only a little over one-half that among the non-abstainers, who are usually moderate drinkers.

The same general result is shown by the figures of the Sons of Temperance Beneficent Society of England.

Dr. Alexander, in a lecture on life insurance in Bombay, makes the following statement:

“Abstainers have not yet received proper recognition for the undoubted superior value of their lives as proved by vital statistics. This arises, no doubt, partly from three causes,—the absence of data establishing the exact degree of superiority, the absence of any guarantee for lifelong abstinence, and the experience of reformed drunkards, whose lives might have sustained permanent damage already. But due recognition of the advantages of abstinence is only a question of time. The experience and practice of life assurance societies is decidedly adverse to the intemperate.”

3. I have myself had since 1864 a very large correspondence and acquaintance with persons who have lived to be very old.

It would tire you to go into details, but it may surprise some doubting ones to know that among them the number of total abstainers who have lived from 90 to 100 years and some over 100 is very much larger than the number of moderate drinkers. Indeed, I know only a very few of the latter who have passed the ninetieth year in good working condition. I can to-day count up a dozen total abstainers from eighty-five to ninety-five, some still doing good work and only one at ninety still hale and strong, while he was never drunk in his life, drinks a little every day.

In conclusion let me say that, while excessive drinking is a devil of devils, doing a monstrous amount of evil, moderate drinking is a little devil paving the way for the larger one. As Horace Greely once said, "That some men live long in spite of moderate drinking no more proves the practice safe and healthful than the fact that some soldiers who fought through all Napoleon's wars are still alive proves fighting a vocation conducive to longevity."

NOTES CONCERNING HEALTH.

No. 2.

BY THE EDITOR.

HABITUAL DRINKING.—Most habitual drinkers are subject in the course of their lives to changes in the vascular organs, such as fatty degeneration of the heart and hardening of the arteries, which lead to grave affections of the nervous system, like apoplexy. It may be taken as proven that the children of drunkards, if they are not carried off prematurely with brain troubles, may be afflicted with serious nervous ailments, such as epilepsy and idiocy, and often with consumption. These are penalties very costly in their nature for the slight and transient, but deceptive pleasure given by indulgence in drink.

MODERATE DRINKING.—There is a distinction between the habitual drinking and the moderate drinking. The latter is generally believed to be safe, provided it does not lead to the former. Dr.

S. H. Davis says that "There is no greater or more destructive error existing in the public mind than the belief that the use of fermented and distilled drinks does no harm so long as they do not intoxicate. 'It is not the *temperate use*, but the *abuse* of alcoholic drinks that does harm,' is the often-repeated popular phrase that embodies the error which helps to rob more than 100,000 persons of from five to twenty years of life each in the United States, through the gradual development of chronic structural disease induced by the daily use of beer, ale, wine, or distilled spirits, in quantities so *moderate* as at no time to produce intoxication. No more true or important remark was made in the noted discussion in the London Pathological Society than the one by Dr. George Harley, that 'for every drunkard there were *fifty* others who suffered injury to the health and morals from the effects of alcohol in one form or other.'"

TOBACCO IN GERMANY.—Dr. Adolph Seiligmüller, an eminent German neurologist, tells us that tobacco has come to be in our time a national poison in many countries, and most especially in Germany. As sequels of chronic nicotine intoxication may be noted without fear of contradiction, palpitation and weakness of the heart; irregularity of the pulse of which heart-pang or *angina pectoris* is an acute symptom; general nervous debility; tremulousness; disturbances of vision even to the point of blindness, and hypochondriacal depression even to the degree of melancholia. The fear-inspiring intermission of the pulse is a frequent cause of inveterate insomnia. That children of heavy smokers suffer with uncommon frequency from nervous diseases is an established fact.

NARCOTICS AND SLEEP.—The same author says the life of many consists in taking artificial stimulants to enable them to perform their work, and then resorting to narcotics to counteract the artificial stimulation and produce rest and sleep. Anyone can see that this alternation of stimulation and depression every twenty-four hours must weaken the nervous system. Coffee is a powerful stimulant for the heart, and, therefore, those who suffer from palpitation, from hysterical conditions, or from insomnia should avoid its use. Tea in day time acts more mildly on most people,

but taken evenings, it may drive away sleep. The spices are less active nerve stimulants; yet pepper especially, and some of the others affect the nerves of the digestive organs powerfully, and their liberal use in modern cookery has something to do with modern insomnia. Of the injurious, the actually destructive effects of alcohol, physicians are not a little to blame in that we insist on giving large quantities of it in fevers and conditions of exhaustion, not to speak of the methods used to cure the morphine habit, until patients often acquire the drinking habit. The evil results of the use of alcohol are often apparent long before delirium tremens or other serious diseases appear; they are preceded by manifold nervous disturbances, the real cause of which is not understood. I have frequently found that rheumatic pains that were ascribed to a cold were nothing but alcohol-neuritis, a mild form of inflammation of the nerves resulting from the use of this drink, which disappeared when the practice was given up, only to return with the slightest repetition of the indulgence. That rheumatism results from even moderate drinking is now well established, and those suffering from this disease can hardly be cured if they do not give up its use.

AMOUNT OF SLEEP REQUIRED.—Sleep is the principal agent in body recuperation. The amount needed is different for different persons. For the ordinary worker from six to eight hours is necessary; yet how often, in the battle for existence, is the desire for sleep forcibly suppressed and the night's rest foolishly shortened. Sooner or later insomnia wreaks its vengeance on the physiological sinner. Many a person who once robbed himself of the necessary amount of sleep would now gladly sleep, but cannot. Many nerve troubles first develop into disease when joined with sleeplessness. It appears as a symptom of a long-standing nervous disturbance, but to many it appears as the first signs of disorders, when it is only a result of causes in operation long before. The man or woman who willingly robs himself of sleep for a very long period continuously wastes what is more precious than gold. He will not go far wrong who sandwiches eight hours of it between each day, and if he looses a little now and then to try and make it up at some other time.

NO PIES ALL SUMMER.—Such was the edict that went forth from one of our friends who did not want to roast over a coal stove or have her help do it either. Fresh fruits in summer were to take their place. These cannot be improved by baking between two or any number of crusts. Daintily arranged they are a feast to the eye as well as the palate, and with sugar and cream are more wholesome than the best of pies. Says Dorothy in the *Country Gentleman*: Living on a farm well supplied with fruit, this was naturally a chief dependence for the young housekeeper's easy summer desserts. She took care to provide each day an additional luxury, in the form of some simple but satisfying accompaniment for the fruit. Sometimes it was a delicious cup of chocolate with cookies or some other simple cakes; sometimes it was a rennet custard or "slip," made in five minutes, either with or without eggs, and brought to the table almost ice cold. The old-fashioned, plain-baked custard, made with four absolutely fresh eggs and four large table-spoonfuls of sugar to a quart of milk, was also a favorite. It is much better without pastry than with, and if lightly baked makes a very nutritious and delicate article of food, especially suited to summer use. Thus has the summer passed without pies, and all are satisfied.

WEAKNESS OF THE STOMACH.—Weak digestive organs are best treated mechanically. The patient lies down on a cot or bed and an attendant works over the stomach by kneading and percussion, particularly the latter for twenty minutes, with intervals of rest as may be agreeable. The clothing is removed excepting one garment. If there is soreness or tenderness the operator adapts his treatment to it so as not to give pain. It is better that part of the time the muscles over the abdomen be relaxed and then contracted when the percussion is applied. The lungs may be partly filled and the breath held during a moment also. The treatment is very agreeable when rightly done, digestion is promoted and the strength of the organ augmented. The best time is about two or three hours after mealtime. If the patient has no one to assist him he can do the work himself with nearly as good results.

PIMPLES ON THE FACE.—Pimples on the face, or acne as it is

called in medical books, has been successfully treated by the application of hot water, two or three times a day for a few days. The water must be as hot as it can be borne so as to produce a redness of the skin. Apply it by dipping a fine linen towel in the water and laying it over the part about one minute at each application.

THIRTEEN AT TABLE.—A hostess who deliberately made up a party of thirteen would be a bold woman indeed, for some, at least, of her company would object to dining at her table. Many people will assert that they have actually known cases in which one of a party of thirteen at dinner has died in the course of the year—and with perfect truth, probably, for, taking the average age of the assembled guests to be thirty-five or forty, the mathematical chances in favor of at least one death occurring among them within the year are rather more than one in thirteen. The chance of a death would be even greater if there were fourteen or fifteen or even twenty, and would amount to almost a certainty in the case of a hundred—an excellent reason for abstaining from public dinners, one might say. At any rate the danger is greater the greater the number. The idea is one of those common superstitions which die hard. If it was not, however, taught systematically to the young in various ways it would soon be forgotten.

BENEFIT FROM COMPETITION.—F. M. Holland writes that competition is more intense than ever before; but its advantages are more freely open to all members of the community; and its rivalries are attended with much less of angry strife than was formerly the case. Once it was sword to sword, but now it is brain to brain; and thus the greatest intensity of competition is accompanied by the highest and broadest mental activity. Where we find keen competition, there we find sound knowledge; and there, too, we find political liberty and enlightened philanthropy. To talk as wildly as some do against competition is really working for a restoration of mediæval or Egyptian darkness. If the present social system is all wrong, the creation of mankind was a blunder at best. Those who believe in progress ought to encourage rational competition. One reason why the children of the rich sometimes deteriorate is because they have not the benefits of competition and hard work to succeed in life.

A CAUSE OF BAD AIR IN HOUSES.—“A few of the causes which contribute to cold and uncomfortable houses is the imperfect arrest of dampness from the soil. The only way of securing a healthful house is to cut it off as much as possible from the soil on which it stands. Ideally, one may imagine a house standing on stilts or piers, having a free current of air below, and a stair up to the floor; but this would be unattainable under existing arrangements. The next best thing is to obtain a well-ventilated cellar, or what is almost as good, a sufficient air space between the ground and the floor, this space being well ventilated and the ground covered with asphalt or concrete. There is an air space below the floor, but it is generally a rough and unlevelled surface of rubbish, with air passages so scantily introduced, and often clogged up, that the air is in a state of stagnation, and the emanations from the soil are sucked up into the house by the warmth and fires, particularly if hot air furnaces are used.” To the above, from the *Sanitary News*, may be added that the moisture in the soil may bring a great deal of impure air into the house, for ground air is not nearly so pure as the air above the ground. To prevent the ingress of this ground air a perfect asphalt pavement on the cellar bottom is often resorted to with success. We shall, in a future number, have more to say on this subject.

HYGIENE ON THE CARS.—Those who travel much have often asked themselves if it is not possible to have the railroad cars kept cleaner and the air in them purer. Very often, however, the passengers themselves are to blame for the state of things that exists. Dr. Conn, in a recent paper before a meeting of railroad surgeons, puts it in this way. He says: “Many good people permit their children and even allow themselves to throw upon the floor of the car nutshells, banana and orange peel, and remnants of lunches. In warm weather these refuse matters will in a short period render the atmosphere of a coach almost unbearable to a sensitive person, and the effect upon the nervous system is very depressing.” Dr. Conn urges very properly that the hygienic condition of railroad cars should be a more important part of railway management. It is the duty of trainmen to examine the wheels of the carriages at frequent intervals. Why not also the

air and sanitary state of the passenger coaches? A trifle of the money spent on decorations and elegant equipments devoted to the hygiene of the cars would be an excellent investment for the traveler, and appreciated more than elegant upholstering and costly ornamentation, which adds nothing to healthfulness.

BACTERIA AS FRIENDS.

BY JENNIE CHANDLER.

In reading a German popular journal of science lately I found an article by Edward Strausburger giving some account of bacteria, which I thought would be very appropriate for the *HERALD OF HEALTH*. Physicians have so long dwelt on the dangerous nature of these creatures that many of us have learned to regard all of them as our enemies. This is very unfortunate, and our author helps to set us right on this matter. He says: "It would be as unjust to condemn the whole class for the diseases engendered by a few, as to condemn humanity for the offences of its criminals.

"As a matter of fact, the services of bacteria in the natural economy of the earth are so important that disease germs may fairly be regarded as isolated, scattered bands. The elimination of the bacteria from the earth would be immediately followed by our downfall. Refuse would accumulate in piles mountains high, while the plants which depend upon it for the greater portion of their sustenance would perish in sight of plenty, from the want of microbes to convert it into assimilable food. Every trace of organic matter is greedily seized on by microbes, which convert it into plant-food, or decompose it into its original elements, and thus render the earth continuously habitable for man and beast. These bacteria are so small that a million of them may constitute a mass hardly visible to the naked eye, nevertheless, such is their capacity for increase, under favorable conditions, that the progeny of a single one, if it could multiply unchecked for fifteen days, would constitute a mass exceeding the cubic contents of the

ocean. Their increase is arrested only by failure of food supply; they are consequently always in sufficient numbers for the conversion of all the dead organic matter of the earth into food substance for living plants. The manure which the farmer spreads on his fields contains billions of these industrious laborers, all actively engaged in converting the organized elements into plant food, and even in rendering the inorganic substances, (lime, potash, phosphates, etc.) assimilable. The most important soil constituents for the farmers are the nitrogenous compounds, the presence of which in manure constitutes its prime value as a fertilizer. Plants cannot take nitrogen from the air, they must take it up by their roots from the soil, but nitrogen is not a proper constituent of soils. In a state of nature the soil gets a supply from the substance of the plants and animals that die on its surface; grain crops soon exhaust this natural supply, and the fertility of the soil can only be maintained by the addition of nitrogenous substance, which the bacteria, in pursuit of their own well-being, convert into assimilable plant-food.

“Experience has taught the farmer that while grain and root crops exhaust the soil of its nitrogen, beans, peas, and other leguminous plants, so far from exhausting, add to its supply, thus rendering possible a high cultivation by rotation of crops, with considerable economy of manure. But these leguminous plants are more capable than others of drawing their nitrogenous supply from the atmosphere; modern investigation has demonstrated that it is the work of bacteria which find substance and habitation in the roots of the leguminous plants, where they multiply from generation to generation, repaying the service by dying there and sacrificing to the plant all the nitrogen they have taken from the atmosphere, in assimilable form. The little swellings on the roots which constitute at once their dwelling place, laboratory, and tomb, may be readily recognized on removing an acacia, or mimosa, or other leguminous plant from the pot in which it is grown.

“Not less beneficial are the bacteria as purifiers of water. If a vessel of water containing animal or vegetable refuse is allowed to stand in the open air, the fluid gradually clears until every par-

ticle of dead organic matter is consumed, when the bacteria cease their activity and sink to the bottom. The same thing occurs on the great scale in nature; the Seine, which at Paris receives an enormous amount of refuse, is clear and pure at seventy kilometres down stream. The bacteria have consumed the refuse. The Elbe, the receptacle of the refuse from so many cities, is drinkable at Hamburg from the same cause."

All this is very interesting and true. It must, however, be remembered that while bacteria purify water we had better not drink it while this process is going on, but wait till they have finished their work and fallen to the bottom, so they will not find their way into our systems.

Bacteria living on dead matter encounter no living resistance, whilst those feeding on living tissues, or fluids in living tissues, meet the living cells of the body and have to combat them.

The role they play in the world is complex and necessary, though some are injurious. They act as scavengers, return to the air and water the organizable elements abstracted daily by the vegetables of the globe, and indirectly by animals, and indispensable to life.

The bacteria that invade our bodies which happen to be in a fit state for their nourishment and growth, are in a sense parasites as much as the tapeworm is.

HEALTH HABITS OF DISTINGUISHED MEN.

HEALTH HABITS OF HON. HARVEY RICE, OF OHIO.

CLEVELAND, July 30th, 1891.

ED. HERALD OF HEALTH.

Dear Sir: In reply to your inquiry as to my habits of life, I have to say that I regard it a delicate matter to speak of myself, but I appreciate your motive in making the inquiry, and reply as follows:

I was born in 1800 in the land of steady habits, and have for the most part practiced steady habits. I inherited a good constitution, was bred in early youth to farm labor, educated myself at college and adopted the legal profession. My life career has therefore

been largely sedentary. At the age of thirty-five my general health became somewhat impaired, when I began a system of treatment with a view to its restoration and preservation.

I confined myself to a plain, nutritive diet, with very light suppers. This improved digestion and secured sound sleep. I have for the last fifty years dipped my face and eyes in my washbowl of cold water every morning, and opened and shut them in the water several times. This has had the effect, as I think, to strengthen them and preserve my eyesight, which is still as good as in my youth. I can read the finest print on a bank note, and have never had occasion to use glasses. In connection with dipping my eyes in cold water, as I have stated, I have bathed my head and neck, and never muffle my neck on going out, no matter what the weather, and consequently I rarely take cold or have a sore throat. For a good number of years past, I have practiced three or four times daily a system of calisthenics of my own for the purpose of physical exercise. It consists in standing upright and in giving the hands, fingers and arms a rapid shaking, accompanied with a rotatory shaking of the body and kicking with the legs, first with the one and then with the other. This habitual practice has had the effect to preserve my physical strength and to exercise every bone and muscle in the body, and especially to keep my arms, hands and fingers in a pliant condition. I can write as good a hand now, my friends say, as I did forty years ago.

I have never used tobacco in any form, and rarely tasted ardent spirits. I believe, however, that while thousands kill themselves by the free use of ardent spirits, many more thousands, especially luxurious livers in our cities, dig their graves prematurely with their teeth. The secret of longevity, as the old Scotch divine said, lies in a nutshell—"Fear God and keep your bowels open."

Very respectfully,

HARVEY RICE.

HABITS OF SENATOR EDMUNDS.—"Senator Edmunds is very domestic in his habits and tastes," says a correspondent of the *Boston Transcript*, who has been visiting him at his home in Burlington, Vt., "and his greatest happiness is found in the companionship of his wife and daughter. With the latter he takes long

rides, and they are a familiar sight on both Washington and Burlington roads. Both exhibit superior horsemanship. Senator Edmunds possesses valuable horses and fine equipages, but in his ordinary drives goes frequently in a most democratic manner, jogging along behind a middle-aged gray horse, sitting about half-way on the narrow seat of a more than middle-aged express-wagon in a costume that is not exactly full dress, with a cheery word and nod for each acquaintance he chances to meet. He is a most enthusiastic sportsman with rod or gun, but is a specially successful angler. A member of a fishing quaternion of Senator Edmund's selection speaks in the highest terms of him as a sportsman and companion in their annual Adirondack outings, saying he is the life of the party. His unruffled good humor, ready wit and apt repartee, and an inexhaustible fund of anecdotes, grave and gay, make him the most companionable of men under broiling sun or lowering skies, by the fitful light of campfire or on the long miles of a fruitless tramp."

HABITS OF EX-SENATOR THURMAN.—Ex-Senator Thurman, who was candidate for Vice-President with Mr. Cleveland, is said to be failing in health, due to failure to take exercise. His studious nature has always militated against his physical well being. Since he left public life he has practically shut himself in his library. He still retains his habit of daily routine acquired during his residence at Washington. He reads nearly all night, and does not rise until noon. His participation in the last Presidential campaign doubtless added days to his life, because it compelled him to take physical exercise that nothing else would have succeeded in making him do. Mrs. Thurman urges him constantly to take some kind of physical exercise, and succeeds in a degree. Since she has been ill and unable to look after him he has taken little more exercise than could be secured in walking from his library to the living and dining-room.

HABITS OF THE TEXAS COWBOY.—The Texas cowboy is a healthy, happy fellow, especially when he is old enough to own a pony with yellow coat and white dapple, mane and tail; the boy's fortune is made now. The pony can carry a man weighing 200 pounds. How easily, then, does it carry the boy.

The boy and the pony are inseparable, and of great usefulness, too, for they herd the cows, look up and bring home straying animals, and constitute the "express line" between home and the outlying places, going to town twenty miles away, may be, for the mail, and making really the connecting link between the new home and the old home in the East.

The boy grows strong, wiry and brown. His appetite is astonishing, and his digestion perfect. His racing up and down quickens his faculties. He enjoys the out-door life, delights in all his possessions and surroundings, and asks for or thinks of nothing better. He is one of the many boys growing on to manhood full of hope, energy, "pluck" and good nature, of which the world cannot have too much, at least so says Geo. A. Stockwell.

HABITS OF OLIVER WENDAL HOLMES.—Dr. Holmes says: I think the cause of my good health is that, although not quite a teetotaler, I have yet always drunk very sparingly, a good remark to make over the teacup, is it not? And I have never smoked. My father lived in that old house, of which you can see an engraving there, and he it was of whom Bancroft the historian always spoke as "the accurate Holmes." We are descended from John Holm, who in 1686 went to Woodstock, in Connecticut. At least that is our belief. My father was a Yale man and a clergyman. He settled in the South, and came North to Cambridge, where, as I told you, I was born.

CHIT-CHAT FOR WOMEN.

AN HOUR FOR REST.—It seemed as though the miseries of moving and "getting settled" would never come to an end, and when in the midst of it, three-year-old Harry caught a severe cold, which resulted in an excruciating and obstinate earache, I almost despaired. Here I was, forty miles from mother or any other experienced woman friend, with a babe in arms, one inexperienced servant, and "John" obliged to be on duty at his labor every hour. In this emergency one day I ran across the street to ask

advice of Mrs. F., a middle-aged, pleasant-faced woman who had come to the door soon after our arrival at our new home and kindly insisted that I should avail myself of any "neighborly assistance they could render."

In reply to my inquiry, "Is Mrs. F. in?" the maid replied, "Yes, ma'am, she is at home, but this is her 'rest hour' and I do not like to disturb her. Can I do anything for you?" (She evidently recognized me, and thought I wished to borrow something.) Just then Mrs. F. appeared, and in answer to my inquiry for advice, threw a shawl over her shoulders and quickly accompanied me home, and soon had the poor little aching head of Harry pillowed on her motherly breast. Then, insisting upon my lying down on the lounge, she said, in a low, monotonous voice as she gently stroked the flaxen curls, "I overheard Maggie's reply to your inquiry for me, and will explain its meaning, for I have already made up my mind that no 'rest hours' are taken out of your days." She smiled but waited for no assurance of the impossibility of such a thing, ere she continued: "At your age I had four children instead of two, and was filled with an enthusiastic determination to be a model housekeeper, wife and mother, and also a leading society woman. For a while I succeeded admirably, but as my life was a constant infringement upon the laws of health a few years sufficed to bring about a complete breakdown.

"During the next three years as I struggled to regain a measure of health, my ideas of the real values and duties of life underwent a decided change. I saw that home-making and housekeeping are not synonymous, and that rest is as indispensable to one's spiritual as to one's physical health. I fought day by day and night by night to conquer my inherited and fostered notions of life and I believe I have trampled them under my feet.

"I should prefer rest after dinner, but our dinner hour is at one o'clock, and Mr. F. is invariably prompt and regular; one of our sons also is obliged to dine at twelve o'clock, and the other is half the time late. This makes added work for the servant, and is trying and irritating to all concerned. Now, if I work until noon, it is not possible for me to meet this emergency with cheerfulness

and composure, and some one is sure to go away in an unhappy frame of mind. So you see that my duty to my family and myself demands that I put myself in trim for just this condition of things. Do not, however, let this deter you from calling on me in any emergency. I am too strong now to be disturbed by an occasional digression from my daily routine."

I shall never forget that little sermon. It set me to thinking, and clarified my vision as by a miracle. How many, many times during the dinner hour had I found fault with the cook, harshly reproved Harry, and been impatient with "John," and then suffered remorse the remainder of the afternoon for my lack of self-control, when my exhausted physical condition was undoubtedly the cause of all.

The plan was certainly worth trying, and I soon determined to do it. Of course, this has been done with many lapses, but under the judicious encouragement of Mrs. F.—to whom I had confided my determination—I have been faithful enough to remove every doubt of its efficacy from my mind, and to wish that every tired housewife in the land could be convinced that a little absolute rest each day is the truest wisdom.—*Katherine B. Johnson in Country Gentleman.*

CONSTIPATION IN CHILDREN.—Mothers may often treat constipation by massage over the abdomen. The flat hand is placed over the stomach and bowels and the parts are gently manipulated, so as to promote the circulation in the parts. It produces a soothing effect on the child and stimulates digestion.

Habitual constipation may be easily cured without the aid of purgatives.

The younger a child is the more readily can the constipation be cured.

The younger a child is the milder should the manipulations be, and the shorter the time given to it.

The duration of the time should be from three to ten minutes, according to the age of the patient. Longer manipulations are inadvisable, and may even be harmful.

Abdominal massage may be regarded as the best means of treating constipation in children.

It requires a little skill in applying it, and the mother or nurse should be careful and study the art thoroughly so as to produce the best results.

THE PRINCE OF WALES AS A HUSBAND.—The popular idea of the Prince as a man of pleasure has obscured the less generally known side of his character, which is revealed when he is in his family circle, as a husband father and brother. His enemies will admit that the Prince's greatest failing arises from his kindness of heart. However far short of the ideal standard he may fall in some respects he is a devoted family man. His brothers and sisters are most affectionately attached to him.

His tenderness to his wife during her illness, his constant attention to her wants, the pains which he takes to keep her informed of all that is likely to amuse her, the interest which he always takes in the welfare of his children—these are all strangely at variance with the popular conception which has gone abroad.

The Prince and Princess have more tastes in common than most people imagine. No wife could be more indignant at the injustice with which her husband has been assailed during the last few days than the Princess of Wales.

TRAINING FOR CONSUMPTIVE CHILDREN.—A proper and imperative regard to the laws of health in the training and development of children with a consumptive tendency is of paramount importance. The best climate available, a proper diet regimen, dress, exercise, etc., should be insisted upon, that the development of the individual, from childhood up, may be most complete and perfect. An encouragement of the vital forces to the fullest extent, so as to overcome the evil, inherited tendencies, so as to prevent a degeneracy of system that will develop or produce in the system a "soil" adapted to the growth of germ-life, is most important. Next to this it is of the greatest consequence that the food taken be simple, properly cooked or prepared, easily digested, of a nourishing character, and free from disease-germs, and especially free from the bacillus tuberculosis.—*Dr. N. L. North*

INDIVIDUALITY IN CHILDREN.—People differ; no two are alike. Children too differ, and to treat them as if they did not shows short-sightedness in teacher or parent. An editorial in the *Open*

Court says: "Individuality being a natural and valuable feature of a man's soul, it is our duty to respect it. Every man has a right to be himself, provided the traits of his individuality do not come in conflict with the rights of others. And the application of this right in education is important. We should respect the individualities of children also. Parents, educators and teachers should observe and study the characters of the souls entrusted to their care. They should prune and guide the growth of individualities wherever whims and vagaries arise, yet they should do so with due discrimination and with a becoming respect for it." The health, happiness and success of a child in life often depends on whether its parents or teachers recognize the child's nature, and help to unfold it to the fullest extent.

TOPICS OF THE MONTH.

IGNORANCE DESIRABLE.—J. J. Wesley Simpson in ordering some books, writes of our work on Marriage and Parentage, for which he has been acting as agent, in Canada: "I thought it would sell like hot cakes, but the fact is, people would rather raise horses or dogs than children. They don't want to know how to raise any kind of offspring, but rather how to *prevent* them. A book on the latter subject would be bought up and devoured with greed."

CARE IN CHOOSING DRINKING WATER.—More and more as a knowledge of hygiene is spread will people be careful as to the water they drink, for an impure article will as surely injure as impure food. A case in point is just reported of two deaths and twenty-four cases of disease from drinking the water of an old well in Milwaukee.

For a long time the well has furnished the water for half-a-dozen families in the neighborhood. About all the members this summer partaking of the well-water became ill, and their ailment soon developed into typhoid fever. Near by is a foul marsh, the water from which is supposed to have worked itself into the well and thus contaminated it, causing these deaths and all the illness. Probably the cost of the doctors' bills, and other expenses, together with the loss of time, have been many hundreds of dollars, or quite

enough to have brought clear water from some other source.

DR. HURD'S WATER CURE.—Dr. Hurd, of the Wesley Water Cure, at Experiment Mills, Pa., writes us that his cure will remain closed until some time in April or May next year, in order that himself and wife may have much needed rest. The doctor has done noble service for over thirty years and deserves a little time for repairing his own health. He would be glad to dispose of his cure which has been very successful, or if not able to do this to dispose of a part of it to a suitable business partner. This would be a rare opportunity for a young man full of health and energy and imbued with the spirit of his work. More and more every year are good health institutions in demand and this is likely to be the case for a long time.

CHEAP BATHS.—A new bathing house, the first of its kind, for the poor, has been opened in New York. The cost for a bath with towel, soap and a cup of coffee is five cents, and many free tickets are given out. Of the thirty or more rooms, most of them are for the rain bath, the water coming in a stream on the body in all directions. Such baths have been found best in European cities. They do not require to be cleaned as tubs do, but clean themselves, the floors and walls being of marble. It has always been found difficult to induce the very poor to bathe, but it is hoped that by these very excellent and cheap arrangements, together with the added cup of coffee, they may be enticed to do so, in which case they will, it is hoped, escape some of those diseases which result from filth.

A COOL SUMMER.—In many parts of the country, the summer has been very cool and the death rate among children in cities less than is the case in a hot season. The *Times* speaking of it says:

“When a heated term comes in a great city it is not so wonderful that the children of the poor die by thousands, as that so many of them survive. Cool weather is more to be desired, in the interest of these children, than anything whatever that can be done for them by art or man's device.

“The disappointment of the keepers of summer resorts at the cool weather is not worth considering in comparison with the bene-

fits conferred upon the population of a great city when it escapes a long heated term."

OUR DAUGHTERS.—The household blessed with noble daughters ought to be a happy one. Ruskin says that most parents forget, however, to imbue them with a love of nature which is so invigorating and healthful.

"Give them," says he, "not only noble teachings, but noble teachers, and give them the help which alone has sometimes done more than all other influences—the help of wild and fair nature. You cannot baptize them rightly in inch-deep church fonts unless you baptize them also in the sweet waters which the great Law Giver strikes forth from the rocks of your native land. You cannot lead them faithfully to those narrow, axe-hewn church altars while the azure altars in heaven remain, for you, without inscription; altars built, not to, but by an unknown God."

BAKED POTATOES.—The baked potato is more easily digested than the boiled, because its starch is partly converted into dextrine by the high heat of the oven. The sweetness of the baked potato is an evidence of this. If, however, baked too long, or allowed to stand after it is done till cool, the starch becomes waxy and loses its delicious quality. The invalid and the dyspeptic should eat baked potatoes rather than those prepared in any other way.

CLIMATE FOR CONSUMPTIVES.—Last month we mentioned Florence, Arizona, as a most suitable climate for consumptives. Col. W. L. Woods, of Washington, writes us that the finest climate for patients with this disease is in Utah in the Fish Lake region. He calls it a paradise for them, and says: "There is no better apple and peach country in the world than in the valley of the Sevier, and the smaller fruits grow there in lavish abundance. It seems that the climate of the valley is mild the year round, with good tonic properties, exciting activity and deep breathing. On the tops of the high mountains there is always snow enough to gladden the eye, even of a Laplander, and during the winter season, it encroaches on the plateaus and sometimes the valleys. The climate may be recommended as the 'Eden' to others than consumptives. All

in all the country appears to be, from all reliable accounts, exceedingly salubrious and healthful.

“The favored place is about 150 miles directly south of Salt Lake City. Fish Lake is 8,763 feet above sea level, and Grass Valley and Rabbit Valley between 7,000 and 8,000 feet. All grades of climate may be experienced within two hours ride or “climb.” Small grain, especially barley and oats, flourish there in rank abundance. It is a land of milk, butter and honey. My friend Kelley has been in all the Territories, and he insists that the ‘Utah Eden’ is the finest climate on this continent.”

TEN DAYS AT MARTHA'S VINEYARD.—We have just returned from a ten days visit to Martha's Vineyard, where we were hospitably welcomed by Mr. and Mrs. T. J. Ellinwood, who have summered there for many years. The air here is unusually free from dust and smoke and even fogs are less frequent than on the mainland, as at Newport. The bathing is excellent. Opportunities for boating, sailing, etc., abound. Ocean excursions to Nantucket and Gay Head are frequent. At Gay Head is the remnant of an old Indian tribe not yet extinct, there being about 200 of them, but they are much mixed with negroes and whites, only one or two of pure blood remaining. They have a church and a white pastor and own their land in severalty, but the whites take advantage of them in all trades, and they are gradually dying out. As we landed at the wharf at Gay Head, instead of carriages to take us up the hills, the Indians were there with ox carts to carry us about in. This was a new sensation to many city folks and especially to the young ladies, and caused much amusement. These people are very good and obliging, and a few years ago, when a vessel went ashore on the rocks near the settlement, they saved many lives and showed true heroism. Mrs. Ellinwood, our hostess, is a rational believer in the prevention and cure of disease by what is known as Christian science, having herself been benefited by it. One of the tenets of this belief is the ignoring of disease, so far as possible, by never speaking of it, and in her household aches and pains of whatever kind are never mentioned. Many people may profit by this idea. Certainly for the trivial ailments of life much may be gained by not minding them. This would be a

great relief to those who are constantly obliged to hear every discomfort magnified, as if it were a mountain, by those who like to talk of their trials and troubles, as too many do.

We shall long remember our pleasant visit and the kind friends we met at Martha's Vineyard.

PROMOTING HEALTH.—The English Government spend about \$45,000,000 yearly in promoting health in the kingdom, a very large sum, but it seems to be a good investment, for the death rate is gradually diminishing. This is best illustrated by London. In the ten years ending in 1869, the deaths annually were twenty-four in every 1,000 of its inhabitants. In the ten years ending in 1889 the rate had fallen to twenty. This meant a saving of about 17,000 lives during the ten years. Not only, however, were these lives saved, but there was a corresponding diminution of the number of cases of sickness, less misery, and an increase in the vigor, health and happiness of the people.

CONGRESS OF HYGIENE.—As we go to press, the International Congress of Hygiene is in session in London. There will be much of interest in it which our readers will get in future numbers. A large number of delegates from all parts of the world are present. The congress was opened by the Prince of Wales, who is deeply interested in the subject and glad to lend it his aid.

When the Prince of Wales arose to make his address of welcome he was heartily cheered. He discoursed learnedly on hygiene and said that the people were exposed to many sources of danger owing to the existing state of factories, from overcrowding, and from the unsanitary condition of towns. He was happy to say, however, that statistics showed a marked improvement in this direction, which might safely be taken as an earnest of the increased good to be accomplished by hygienic knowledge in the future.

It may be fairly said that in no part of the civilized world is there so much interest in this subject as among English people. We are far behind them in this country. While we have much to learn of them, we can teach them little, but we have one advantage, and that is, the greater readiness with which we adopt new

views and test their merits. For this reason it may be expected we shall not long be behind them on so great a subject.

DEMOGRAPHY.—This word is new to most people and not in the dictionaries, except those of the latest date, but as it is one of the subjects for discussion at the International Congress of Hygiene it is well for us to know its meaning. It is the science of statistics as applied to the social and sanitary welfare of the people. It includes vital statistics and is thus closely related to hygiene.

HYGIENE.—*Notes and Queries* tells us that it is useful to have a note of the first appearance of a word in our language. At the end of the first volume of the third edition of Southey's "Letters Written During a Journey in Spain" occurs a translation of the "Rules of the Royal College of Surgery at Madrid, founded by Carlos III, 1787." Here we find that the second professorship "shall be of Physiology and *Hygiene*." To this word the following note is attached: "I do not understand this word; perhaps it means the doctrine of health." Southey was a great reader, and had a verbal memory to be envied. It is obvious that he had never met with hygiene before.

NEW BOOKS.

MESSRS. FUNK AND WAGNALLS, of New York, have in preparation a Standard Dictionary of the English Language which will embody many new features. They promise 70,000 more words than any other one volume work, and a hundred other improvements, which we have no space to name here, but the publishers will send a full prospectus, with all particulars, free to any one who will address them.

THE PHILANTHROPIST is the name of a little monthly paper edited most wisely by Mr. and Mrs. A. M. Powell (Box 2554 New York) and devoted to social purity, in all its phases, as well as battling against sensuality. That such a paper is needed no one can doubt. In the August number we find some thoughtful words by Mrs. Linermore which are worthy of quoting. She says:

"Many years ago Lydia Maria Child narrated her visit to a country church, where an untrained choir sang so shockingly out of tune and time that the hard discord jarred on the ears of the most uncritical. Presently the clear, sweet soprano of a woman's voice penetrated the unmusical clamor. In perfect time and exquisite tune she sang on, her voice soaring above the din, like the note of a lark. Soon one and then another caught her tone, and followed her lead, until when the hymn ended all the choir were singing in perfect harmony.

"The world is full of discord, and seems sadly out of tune. It has long jangled inharmoniously, with strife and sensuality, want and woe, selfishness and crime uttering their varying plaints on the ear of the ages. But in these latter days sweeter sounds are chiming in, and women, who have risen out of the repression and ignorance of the past, are catching the key-note of the divine song heard at Bethlehem, 'Peace on earth and good-will to men!' Be it their mission to hasten the verification of the blessed prophecy which has moved so slowly toward fulfillment."

FUNDAMENTAL PROBLEMS, OR THE METHOD OF PHILOSOPHY AS A SYSTEM OF ARRANGEMENT OF KNOWLEDGE, by Paul Carus, and published by the Open Court Publishing Co., of Chicago, for \$2, is a book for students of philosophy. We have rarely read a work so full of thought clearly expressed. It is a good sign to have such works written, and we hope the demand warrants their publication.

THE DISEASES OF PERSONALITY, by Th. Ribot, translated from the French, is a work from the same house. Dr. Ribot is Professor of Psychology at the College de France and one of the most able men in his department of learning. If the thousands of young people who read so many novels would make themselves masters of works like this it would be better for them. Price, seventy-five cents.

THE SOUL OF MAN is a work by Paul Carus and published by the Open Court Publishing Co., of Chicago. It contains a very large number of illustrations of the brain and nervous system of every sort of creature so as to be almost a picture book. No subject can be more interesting than the one this book discusses.

For ages man has sought an answer to the question of the soul and still the inquiry goes on. No answer satisfies all minds. "The prosperity, the salvation and the health of the soul are the purposes of life; they are the goal of all efforts; they are the contents of ethics and religion." These are the words of the author, and with this end in view he gives us a book full of interest, though it cannot give satisfaction to all. Whoever reads it, however, will learn much that will satisfy him concerning the mind and feelings and especially of psychology.

PUBLISHERS' NOTES.

THE publisher of the HERALD OF HEALTH will have ready September 20th a new work entitled "The Moral and Religious Development of Thomas Carlyle," with a new portrait. It is by Dr. Flügel and translated into English by Miss Jessica Gilbert Tyler. We have no hesitation in saying that whoever reads this work will arise from its personal a happier and a better man. Price \$1.

WE noted last month that visitors to New York might find very pleasant rooms, with board, at 46 E. 21st St. We hope to see a goodly number of our friends and others here during the season.

THE HERALD OF HEALTH.

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HERALD OF HEALTH.

Forty-first Year.

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No. 10.

HOW TO PURIFY DRINKING WATER.

BY PROF. PETER T. AUSTEN, PH.D., F.C.S.

NEXT to air, water is the most immediate necessity of life. Without air one can exist but a few moments; without water only a few days. The human body is about seven-eighths by weight of this substance. Water is being continually thrown off in proportion to the amount that is taken in, including what is contained in our more solid food, at least two quarts a day. It is the agent by which the functions of the body are carried on, supplying many of its various wastes, and giving material for its processes. A human being may be described as an animated pipe. Water is drunk because it is water, but it almost always contains extraneous matter, which may or may not be harmful. The more nearly drinking water approaches to perfect purity, aside from a certain amount of dissolved gases which impart to it a slight pungency of taste, the better will it fulfill the office of a solvent in the body; the more easily will it be assimilated and pass through the membranes, and the greater will be the amount of solid substances that it will dissolve and eliminate.

Aside from the freedom of a water from dissolved mineral matters, which make it "hard" or impart other properties to it, water may contain certain deleterious matters which may cause it to impart to those who drink it serious functional disorders, and often fatal diseases. We peel, clean, and otherwise carefully prepare before eating vegetables dug out of the earth, and why should

not the same care be exercised in purifying the water that is drunk? But this is not generally the case. The ordinary well is a hole dug in the ground, and the water that oozes into it may contain the dissolved impurities of the soil, putrefying vegetable and animal remains, as well as the pollutions from leaking cess-pools and other abominations. So long as it is bright and sparkling it is considered palatable and safe. But scientific investigation has shown that the sparkle of a water may be due to an excess of dissolved carbonic acid gas, and this may be the result of the putrefaction of organic matter; and that even when clear, sparkling and palatable, water may still be impure.

Microscopical investigation has shown that many diseases, such as typhoid fever, for instance, may be imparted by minute organisms popularly known as "germs" or "microbes." These organisms are given off by the patient suffering from the disease; and when they are transmitted to others, as frequently happens by the agency of water, they take up their abode in various organs of the human system, develop and live at the expense of the body, causing disease. Many sad instances of the effects caused by drinking polluted waters could be adduced. Filtration, on a small scale, becomes an art of the housekeeper.

I desire to explain a simple method by which any housekeeper of average intelligence can make a cheap contrivance which will do its work in a way not easily surpassed either in results, efficacy, rapidity or simplicity by any filter that can be bought. Such a filter can be set up in a short time at any place, and will be found particularly useful when one is away from home; for then special appliances are not always obtainable.

It is well known that the addition of a minute amount of alum to a water containing bicarbonate of lime in solution (and most natural waters contain more or less of it) will cause the formation of a gelatinous precipitate. This precipitate entangles and collects the suspended matters and germs, forming coagulated or agglomerated masses which are easily removed by simple filtration. Waters containing clay or mud which is so fine that a mechanical filter cannot remove it, when treated with a small amount of alum can be filtered perfectly clear through a coarse filter. The alum

thus added is not left in the water, but is removed by the filtration, for its active constituent, the aluminic sulphate, is decomposed and precipitated by the action of the dissolved bicarbonate of lime. This should be well understood, although if a small amount of alum remained its effects would not be noticeable.

The method of filtration is very simple. An oil bottle or any long, narrow-necked bottle serves for the filter. Tie around it a string soaked in kerosene, about half an inch from the bottom, set the string on fire, and hold the bottle bottom up. When it is burnt the bottom of the bottle is thrust in cold water. If properly done, this causes it to split off evenly. The rim should now be burred off with a file to remove any sharp edges. It is then thoroughly cleaned and placed neck downwards in a convenient support, as a hole bored in a shelf, or it may be allowed to stand in a wide-mouthed bottle, resting by its shoulders on the rim of the mouth. A small handful of cotton wool is now thoroughly wetted by squeezing it in water, and shreds of it are dropped into the bottle until a layer two inches deep has been made. The shreds should be dropped in carefully, so as to distribute them evenly. When enough has been dropped in, a cup or two of water is poured in and the bottle gently tapped. This consolidates the mass and finishes the making of the filter-bed.

The amount of alum required need not, as a rule, exceed two grains to the gallon, and in many instances may be less, but in cases of very dirty waters, such as that of the Mississippi River, the amount may be increased to four or even six grains per gallon. The alum is best kept in a solution of such a strength that a teaspoonful of it will contain a grain. The following prescription will enable one to get enough put up at any apothecary's to last some time: \mathcal{R} . Alum, one hundred and twenty-eight grains; distilled water, sixteen ounces. \mathcal{M} . *ft. solutio*.

The expense, including the bottle, should not exceed fifteen cents.

The filtration is best done as follows:

A gallon of water is placed in a clean tin pail and two teaspoonfuls of the alum solution added. It will save time to make scratches on the inside of the pail, showing the height of one, two,

or more gallons. It is then well mixed with a clean tin dipper. Keep this pail and dipper for this use alone. They should be frequently well scoured with soap. After mixing, the water is allowed to stand five or ten minutes, and then poured by means of the dipper, into the filter. It will run through rapidly and be as clear as crystal, and not seldom form an astonishing contrast with the original water. The first half pint should be rejected. It may be caught in a pitcher or other receptacle. A filter bed will last a day, and should not be used longer, but be thrown away and a fresh one prepared. The method may be applied to the many filters in use, by simply adding to the water to be filtered one or two grains of alum to the gallon. It will be a poor filter that will not clear filter after this addition.

Attention has been directed to the latent dangers in ice. This apparently harmless and attractive substance may fairly reek with disease germs and filth of all kinds. Unless it is known whence the ice comes, its use may be more dangerous than the use of water. Ice is sometimes derived from water which no one would think of drinking, as, for instance, from ponds and rivers in the neighborhood of sewer outlets, and may be foul. Aside from the danger of germs lurking in it, there is risk in the indiscreet use of water cooled to an abnormally low temperature, since diseased conditions may be caused by the drinking of very cold water. No water is so refreshing as that of a mountain spring, and one reason of this is that its temperature is just right. It is well to take hints that are given by nature, and the hint that the best temperature of drinking water is about 50 degs. Fahr. is a good one, and worth following.

I would suggest that the filtered water be caught in stoppered, carefully cleaned bottles, stoppered with clean corks, and that these be placed in a refrigerator for several hours. By placing a half dozen of them in a refrigerator and replacing them with others as they are taken out, a supply of clear filtered water of a satisfactory and safe degree of coolness may always be kept on hand, and its use prevent many a case of sickness and not a few deaths.—*Health.*

THE MATTER OF CLIMATE.—PERSONAL BIAS.

BY R. M. TUTTLE.

While the climate found in one particular place may exactly suit one particular individual, that is no proof of its great salubrity. One meets a resident of California, and he will say that his State possesses the "finest climate in the world." The Texan claims the same for the Lone Star State. The Minnesotan declares without equivocation that only in the State of the North Star is a climate par excellence to be met with; while further West, in North Dakota, my neighbors with myself insist that we are one notch nearer perfection than Minnesota.

A few days ago, when New York was suffering from a hot wave that struck dead many of her citizens, one of the leading newspapers of that city bemoaned the variableness of the climate on the Atlantic Coast. It called attention to the fact that in the course of twelve months there would be a variation of over 100 degrees, and if the climate were able to be ashamed of anything, it would, on the appearance of that article, have been ashamed of itself. I happened to be basking in the sun on the beach of the Pacific Ocean, South of San Francisco, when New York was thus suffering, and I read the New York paper's remarks as they were quoted in a San Francisco paper. It is needless to say that a lively contrast was drawn between the beastly climate of the Atlantic Coast and that which the Californians enjoy.

In the matter of climate I think I have noticed a curious fact or two. The man whose interests are such that he desires to see new settlers come into the State in which he lives, can see endless beauties in the climate of that State. There is nothing else like it in the world. He will, in season and out of season, talk about the superb climate that he is enjoying, and he cannot see why all the world does not come and enjoy it with him. If, on the other hand, a man lives in a State that is not seeking for new settlers, he is dominated, or is likely to be dominated, by a desire

to have something in the shape of a climate that he does not possess. California seeks immigrants; New York does not.

A couple of weeks ago, I was spending a little time in Portland, Oregon. The climate of that city appears to me to be very much like that of England. In the British Isles I have met with the same constant rain in the winter time that the Portland people have. In the fall there is the same muggy haze. In the summer time England and Oregon have occasional fogs, and never the torrid heat which one meets with in most States of this Union. There is the same immunity in the one locality as the other from severe winter weather during the months of December, January and February. But what a difference there is in the attitude of the denizens of the old and the new. In England, where emigrants are not sought for or desired, you are frankly told that the climate is beastly; in Portland, where new settlers are being looked for all the time, the climate is declared to be heavenly.

The average man can live almost anywhere, so far as climate is concerned. For my part, I don't like the monotony of the climate of California—just exactly what the San Francisco papers claim is so delightful. I dislike the haze and fog of Portland, or Tacoma and Seattle. My own taste would never lead me to reside at such high altitudes as Helena in Montana, or Denver in Colorado. The good people who live in these cities will not admit that any climate on this mundane sphere compares with theirs. I don't object to the variableness of the climate of New York City. Variety to me is charming. I do like the wonderful Indian summer which we get in the Northwest—North Dakota and neighboring States—from the middle of September to the middle of December. The clear, cold, bright winter that lasts from the middle of December to the last of February has real pleasure to me. The short, not too rainy and rather blustering spring is perhaps the least agreeable season we have. The summer gives us cool nights, and the temperature is seldom oppressively hot. Sunstroke is rarely heard of.

The chief point that I desire to make is that nowhere, in my judgment, can one find what will be agreed upon as an ideal climate. Whether one is searching for such a climate for the sake of health

or for the sake of comfort, the search is a vain one. The individual may find a climate that suits him exactly, but it may possess real faults from the standpoint of his brother or his wife. New York can afford to have her climate derided by San Francisco. The inhabitants of Gotham can tell their friends on the Pacific Coast that it takes the energy, the vim, the enterprise, which only come with a climate that has its cold spell, to build up such a city as now occupies Manhattan Island. They can say that the enervating climate of California is such that its inhabitants have not the incentive to build up at the Golden Gate such a city as New York is. Climate, and climate alone, prevents it. California has far greater natural resources than the Empire State. The gold, silver, forests, and a soil capable of producing a limitless quantity of tropical and semi-tropical fruit, make of California a State second to none in the Union in natural resources.

The fastidious or the invalid can get the kind of a climate he wants within the borders of his own county. I have heard of people in England going from one county to another for the sake of the change in climate. There are parts of this country where one can do the same. If you live in the State of Washington, west of the Cascade Mountains, and because of the dampness of the atmosphere suffer from rheumatism, a trip into the next county over the mountains will probably bring you relief. There you will find a clear, dry atmosphere, with no signs of water except such as you see in the mountain streams that are flowing towards the sea. The possessor of one certain class of invalidism may find life only in a certain sort of climate. But he should recognize the fact that that particular climate may be death to the possessor of another kind of invalidism.

NATURAL SANITARIUMS.

BY JENNIE CHANDLER.

In a few places in the world nature seems to have made sanitariums, or at least all the conditions for them, on a grand scale, even to heating the water and furnishing the steam by utilizing

the internal fires of the earth. One of these is in the Alps in Europe. Rev. J. L. Corning, who has just been there, gives us an account of his experience in the *Christian Register*. The place is at an Alpine village called Loecke les Bains, or place of the baths. "The chief interest up here," says he, "is a daily parboil of several hours' duration in hot water, which is heated somewhere down in the bowels of the Alps, in invisible boilers and over invisible furnaces. Of course there are maladies which the daily parboil of two or three weeks is supposed to cure. But the local doctors will tell you that the Bethesda pools which abound hereabout are stirred by the angels, and will cure nearly every bodily ill that flesh is heir to. The fashionable thing being the daily parboil, one in reasonably good health, who has not learned to set conventionalism at defiance, comes somehow to fancy that something or other is the matter with him; and, ere one is aware what he is doing, he is out of his bed with his flannel bathing gown on and up to his neck in the water. We were among the conventionalists, and have had about a fortnight's parboil. Our breakfast is served to us on floating tables, and we eat and drink and soak all at the same time.

"Every 'cure has a crisis,' and so has this one. They have a French and German name for it, both of which I might write if I wanted to make a display of my linguistic attainments. Let it suffice to intimate that the characteristic symptom of the crisis manifests itself by an uncomfortable cutaneous eruption and a disposition to rub against fences and posts, as quadrupeds sometimes do. We made our escape from our Bethesda pool too early for the crisis, content to see our friends enjoying the pleasant consciousness of a cure in the escape of the little demons of disease through the pores of the skin."

One does not need, however, to go to the Alps to find natural sanitariums. A correspondent of the *New York Tribune* gives an account of one in the Rocky Mountains which will interest our readers. It is at Glenwood Springs, a little place of 1,500 population, 300 miles west of Denver, situated in the outlying spurs of the Rockies. "The springs here form the greatest and most obscure collection of hot springs in the country. Greatness, I

take it, as applied to a spring, can only refer to volume, and the volume of the spring whose water is used here is about 2,000 gallons per minute, while another one of the same kind pours 6,000 gallons per minute into the Grand River. The water is rich in salt, sulphur and magnesia. It gushes forth at a temperature of 120 degrees. Years ago the Indians used the springs for the cure of many diseases. Miners and cowboys in the pioneer days came many miles through the mountains to bathe in the waters for the relief of the rheumatism they had contracted on the snowy peaks. But the rude methods of these early days have passed away; the place has been developed and the best conveniences have been supplied. Some of these springs were on an island in the river and some of them in the bed of the river near the banks. As nature left them they were submerged in high water and were often not available. Many of them have been reclaimed by solid masonry from the waters of the river, so that they are under complete control. Those on the island are most copious and the ones now in use. The island has been connected with the mainland and the river turned beyond it. Hundreds of thousands of dollars worth of improvements in bath-houses, dressing-rooms and swimming pool cluster around the springs. A large portion of the water has been turned into the largest artificial swimming pool in the world. As the water stands at about the same temperature in all seasons, open-air bathing continues through the year. The pool is 600 feet long, 65 to 110 feet wide, and is graded to a depth of from $3\frac{1}{2}$ to $5\frac{1}{2}$ feet. It is walled in with red sandstone and floored with brick. The water pours in at one end and out at the other, falling in temperature during the passage from 120 to 60 degrees. The pool is locally very popular, excursions to it from towns on the Western side are frequent, and Aspen runs a weekly Saturday evening train that is humorously called the 'Laundry' train. Some of the passenger trains stop long enough for travelers to take a plunge. I have seen more than 200 bathers in the pool at the same time, and the promenades along the bank full of spectators. Accidents are almost impossible in a pool of its depth and temperature, and it is therefore popular with ladies. Lady residents of Glenwood, who are frequent

visitors, are fine swimmers. On the bank of the pool is a two-story stone bath-house of pleasing design, finished in the best style. It contains forty bath-rooms, with porcelain tubs, a special provision for regulating the temperature of the water, billiard, reading, coffee and reception rooms, and is altogether one of the best appointed bath-houses in the West. On the opposite side, up the river a quarter of a mile, are 'The Caves,' where Turkish baths on a novel plan are given. Caves have been dug in the side of the mountain over hot springs, and the steam that rises is utilized for the baths. The temperature is high and the effect very pronounced. The rheumatism or blood disease that does not yield to the power of the 'Caves' bath is stubborn indeed. The accommodations here are primitive, but a contract has been made for the construction of more commodious and comfortable quarters.

"The effect of these waters in rheumatism, blood and skin diseases, catarrh, etc., cannot be doubted. Indeed a responsible hotel-keeper in the town boards and pays all the expenses of responsible invalids on the plan of 'no cure, no pay.' Stronger faith than this could hardly be shown, and up to this time every invalid taken under his guarantee has been willing to pay the indebtedness so incurred.

"Glenwood itself lies in a lovely situation. It is between 5,000 and 6,000 feet above sea level, and has cool nights and bright, pleasant days. Mountains 2,000 feet high, with softly sloping green sides, surround it. Off to the South, Sopris Peak stands perpetual sentinel. From an outlook on the top of the surrounding mountains many miles of the snow-covered peaks of one of the continental ranges can be seen. Beyond Sopris the rugged outlines of the Elk Mountains can be traced. To the West, ninety miles distant, Book Cliffs stand out boldly on the horizon. The Grand River flows by the town on one side and is joined from another side by the Roaring Fork, a clear, cold mountain stream. Through wooden gutters on both sides of the principal streets flow rippling streams of clear water, colder than most well water of the older States. The water supply of the city comes by means of flume and pipes from No Name Creek, a picturesque mountain

torrent of snow water. It reaches the consumer at a temperature of 45 degrees in summer and but little above 32 degrees in winter. It comes to the city with a head of 468 feet, giving sufficient pressure for fire purposes and force enough to run the machinery of the electric-light plant.

"The tourist not used to mountain life, wishing to begin it cautiously, can scarcely find a more inviting or safer place on the Western side. It is not high enough to affect the breathing of one with weak lungs, and yet it is high enough to give a cool, invigorating atmosphere. The pool affords a daily diversion. The drinking water is unsurpassed. The mountain excursions that may be taken without too much exertion show picturesque scenes, and good trout fishing is near at hand. The only drawback is the extremely high cost of entertainment. This is so high as to be almost prohibitive to one of limited means. Indeed one soon finds that the tourist is the only man who is in Colorado for his health, and the suspicion soon follows that all others are here for a chance at him. But the tourist generally regains his health, if he happens to be in search of it, and he regains it under such novel and exhilarating conditions that he is little inclined to find fault with the cost."

To this it may be added that Colorado is by nature a great sanitarium. Multitudes, as all know, go there yearly to leave their diseases. The State itself is a great park, as well as a sanitarium, and the only misfortune is that it is so expensive, only those with a long purse being able to bear the cost.

It may also be said that not all classes of patients are benefited here. The nervous and sleepless would often receive injury, as do those with weak and diseased hearts. So, after all, natural sanitariums have special value for particular cases, and not all should seek the same locality, but each the one best suited to his case, if we can find it.

CURING BY FAITH.

By J. C.

What is faith? It has been defined to be the assent of the reason to something that cannot be proved. It may be a feeble assent or one so profound as to take possession of the whole nature and control the life. We admire such a faith, even though we cannot always ourselves assent to it. The importance of faith in all we do is far greater than we are willing to admit; indeed, life without it would be dreary and desolate. Faith helps us over many difficulties, does indeed, as Christ says, help us to remove mountains, which often obstruct our pathway in life. The curing of the sick by faith has always had its place in every system of medicine, and in many religions, especially in the Christian religion in its early days, as any one may know by reading the New Testament. Even Christ refused on many occasions to receive any credit for curing the sick, but replied, "Thy faith hath made thee whole," showing plainly that he recognized what modern science has found true, that the healing principle lies in the person himself.

I do not wish to deny, or even to question the truth of cures by faith. So powerful is the action of the mind on the body that it energises it completely, and through it the functions of respiration, circulation, nutrition; or if it fails to energise the body, weakness and disease at once appear. I even go so far as to say that a very large proportion of the sick probably would be sound if only they had sufficient faith to believe themselves to be so. This influence of the mind on the body has been the stronghold of physicians from the earliest times, and "faith" is as powerful an influence for good or evil now as it has ever been. The *London Lancet* says, "Such 'miracles' as the Salvationists are working with their prestige among the emotional classes, whether illiterate or well-formed, have now formally signalized the commencement

of a new era in religious enthusiasm. When the first enthusiasm subsides, 'miracles cease' of physico-mental necessity. The large class of so-called hysterical, cataleptic, and even epileptic affections are distinctly amenable to this influence; so are those nervous disturbances and derangements which consist wholly or chiefly in disorderly activity, as distinguished from actual disease. The imitative maladies, of which there are always a very large number of cases, are, of course, amenable to the curative influence of faith. Outside these classes, however, stand a multitude of badly managed or misunderstood cases which only need to be placed on a new footing—it matters little what—to get well. A wondrous cloud of ignorant prejudices hovers over many districts as to the curability or hopelessness of special diseases which are better understood and more successfully treated—on common-sense principles—in the centres of knowledge. For example, we know of localities and affections which, being associated, produce the most dire delusions as to the length of time bones usually take to unite in healthy subjects; and how far coughs and other distressing maladies are, or are not, under the control of the will. In such combinations of fact and fiction it is easy to get miracles out of such common matters as the union of the accurately applied ends of the fractured radius in three or four days! There is not a word to be said against 'healing by faith.' Every one has cases under his observation that he would be heartily glad to find so powerfully affected that they could be cured even by this agency. All we are anxious to point out is that an intelligent lay press ought not to lend itself to the promulgation of mistaken beliefs concerning it.

Of course, it is true that many of the poor people who are reported to be 'cured' are actually benefited, and by their faith. This is a fact, and there is no sort of reason why the benefits received should not be permanent. If the subjects of these cures are thankful to the Giver of all good, that is not a matter to make merry about. It is as it should be. We are glad of their gain and pleased to find them moved to gratitude. Meanwhile, if these 'cures' need be discussed, let the comments made be neither irreverent, offensive nor puerile."

With such a high endorsement of curing by faith as this from the leading medical journal of the world, and with such observations as all of us can and have made, let us not be afraid of a reasonable but profound conviction that many diseases, perhaps a majority, are cured by faith.

NOTES CONCERNING HEALTH.

No. 3.

BY THE EDITOR.

INFLUENCE OF CLIMATE.—At the recent Medical Congress at Staten Island, Professor E. P. Thwing, M.D., read a suggestive paper on this theme. He said: "Climatology is a fruitful study, related to agriculture, mechanic arts, sanitary science and medicine. It is an old study. The instabilities of the climate were noted by Hippocrates and others, centuries before Christ. The science of modern meteorological science, however, dates from 1817, the time when 'Humboldt's Isothermal Lines' was published. Prof. J. W. Draper, of New York, has shown how climate changes not only complexion, but cranial development. Uniformity of climate tends to create homogeneity of national life. This means immobility, as I have seen it among Asiatic races, unless modified by higher factors. Climate to a country is like temperament to a man—its fate." Prof. Thwing referred to his recent observations in India and China, and then spoke of the United States as the "Intemperate Belt" of the globe. Climatic influences, he said, intensify the feverish rush of life, first, by the extremes of thermal changes; secondly, by the peculiarly dry and electric quality of the air which stimulates the nervous system. A neurotic diathesis is the result, and men cannot bear the added excitement of strong drink. In closing, recent

electric experiments on criminals were described, in which Lombroso has shown that while the average criminal has dulled tactile sensibility, he is much more susceptible to meteorological changes. Climatology therefore deserves the special attention of the student of inebriety.

QUEEN VICTORIA'S GARDENS.—We are always interested in the life and surroundings of those who hold an important position in the world, and naturally desire to know about them. "The St. Stephen's Review" tells us about Queen Victoria's gardens, and what it says is very interesting. She certainly does not need to go hungry, and no doubt many a basket of her dainty fruit finds its way to the tables of the poor. Her kitchen gardens are at Windsor and cover thirty acres, and are hardly surpassed by any in the world. The *Vegetarian Messenger*, in condensing the description of them, says: "An immense range of conservatories, vineries, peach-house, pine-houses, mushroom beds and other forcing-houses lie around the principal building, which includes the house of the head gardener, and also a small box consisting of two rooms for the Queen's own use when she visits the place. The whole is surrounded by a double wall twelve feet high. The Queen is entirely supplied with fruit and vegetables from these gardens, and the whole of the fruit and vegetables used for the immense banquets given during the Jubilee year and the visit of the German Emperor to Windsor came from them. When the Queen is at Osborne or Balmoral, large baskets are sent daily from Windsor, loaded with the choicest produce, and the result is that the gardens at these two places are small and comparatively but little attended to. The Queen is very fond of vegetables, and, moreover, considers them exceedingly conducive to health. In consequence, the Royal table is well supplied with them of all kinds, in season and out of season. In addition to the graperies in the gardens there is a huge glasshouse not far from Cumberland Lodge, which contains one of the largest and most celebrated vines in the kingdom. It is larger than the one at Hampton Court, though the latter is much more celebrated. The average yield of the Windsor vine is from 1,800 to 2,000 bunches of black grapes. A special gardener is employed to attend this house and

make the vine his especial study throughout the year. The Queen is very fond of these grapes, and hampers of them are sent to her at certain periods wherever she may be. The vine is of immense age, and presents a most singular appearance." Judging from all this, the Queen's dietic habits are good, and no doubt to them and to her practical knowledge of hygiene, of which she is a genuine student, she has maintained such excellent health to such an advanced age.

DANGER IN FERMENTED LIQUORS.—Dr. N. S. Davis says of ales and beers: "A popular error is the opinion that the substitution of the different varieties of beer and wine in the place of distilled liquors promotes temperance and lessens the evil effects of alcohol on the health and morals of those who use them. Accurate investigations show that beer and wine-drinkers generally consume more alcohol per man than the spirit drinkers; and while they are not as often intoxicated they suffer fully as much from diseases and premature death as do those who use distilled spirits. The beer-drinker drinks more nearly every day, and thereby keeps alcohol in his blood constantly; while a large percentage of spirit drinkers drink only periodically, leaving considerable intervals of absence, during which the tissues regain nearly their natural condition. The more constant and persistent is the presence of alcohol in the blood and the tissues even in moderate quantity, the more certainly does it lead to perverted and degenerative changes in the tissues, ending in renal and hepatic dropsies, cardiac failures, gout, apoplexy and paralysis."

DEFINITION OF A POISON.—A poison is any substance which, outside of mechanical force, has a *tendency* to kill living matter. Food and drink can never be poisonous no matter how many are killed by over eating or drinking. Their death would depend not on any inherent quality or property of the food, but on other conditions. A poison is a poison at all times, and will kill living matter as long as it remains that particular thing. No man's skill can change the tendency of alcohol, arsenic, opium, strychnia, belladonna, aconite, lead, phosphorous, antipyrine, etc., to destroy each its own peculiar form of tissue according to its special power.—*F. O. Broady, M. D.*

WHEN TO STOP WORK.—In 1870 Mr. Henry W. Blodgett was appointed Judge of the United States District Court for the Northern District of Illinois. This year he reached the age of seventy. The law provides that a Federal judge when he is of this age if he has served ten years on the bench may retire upon a pension equal to his salary. Judge Blodgett has been asked whether he intended to avail himself of the privilege. He replies that he does not; his health is good, he feels perfectly competent to keep at work, and has grown so used to labor that he would not know how to get along without it. Two of the nine judges of the United States Supreme Court (Bradley and Field) are past seventy, and might have retired on pensions long ago; Judge Miller was well advanced in his seventy-fifth year at his death; and Judge Blatchford was seventy last year. It is interesting to note the change that has taken place during the past century on the subject of retiring from active labor at a certain age. Ben. Franklin used to say at forty-five, if he had worked well, a man was entitled to half a day's holiday every day. We no longer think so, but keep right on as long as we can. And this is right, but at the same time we can do this more safely and easily if we regard the laws of personal health.

THE PERFECT MAN.—Rev. I. W. Chadwick writes to the HERALD his idea as to what helps to make the perfect man: "I should say, first, to be well born—*i. e.*, of good physical, intellectual and moral stock; second, to be well reared—*i. e.*, without too much indulgence or restraint in habits of obedience and temperance and kindness; third, health with as little thought of it as possible, but with some toughening and habits of exercise, walking and swimming, and remembering that 'there is nothing so good for the inside of a man as the outside of a horse;' fourth, a good education, of which any college or other youthful training is only the beginning; it requires a life long habit of reading good books of many kinds—literary, scientific, poetry, novels, history, biography; fifth, moral training—first, that of parents and teachers, then taking one's self in hand—the means of this the companionship of pure minded, wholesome friends, the reading of the lives of

men of truth and courage and public spirit and fidelity to personal conviction, thinking for one's self and having the courage of one's opinions; sixth, a good heart—*i. e.*, loyalty to the affections of home and friendship and a helping hand for those who are stumbling or falling in the way; seventh, the cultivation of the religious nature, the avoidance in religion of conventionality and superstition, the widening of our religious sympathies through acquaintance with the thought and noble personality of many different sects and the curing of our narrowness and conceit by the comparison of Christianity with other great religions, the discouragement in ourselves of the habit of adopting things because they are new any more than because they are old or for any reason except that they are true and good. With due regard to all these things a man will still come far short of perfection, which is a receding goal. But it is something to cherish generous ideas."

A HEALTHY LIFE.—Neal Dow tells us that "a healthy life and a long one mainly depend upon the comfort of one's surroundings. Sufficient food and suitable clothing adapted to one's needs; a comfortable shelter—in a word, a good home is needed. One can't have these without money, and this comes to the great majority of people by earning, and the good of it comes by saving. Without saving, wages go but a little way in promoting comfort. Everything spent on drink is so much withheld from the necessities and comforts of life. Poorer houses and fewer of them; less clothing and poorer; insufficient and unsuitable food; less fuel and more suffering from the cold; more disease and less chance of recovery; more and speedier deaths are the result. People can not spend their wages for whiskey and beer and at the same time supply themselves and families with comfortable and abundant food, fuel, clothing and suitable shelter from inclement skies. That this problem will be solved at some time in this country I have no doubt. Our people will by and by wake up to the enormous folly, the sin, shame and crime of spending so much on drink. There are more than one hundred thousand lives in this country shortened annually from five to twenty-five years each by the drink habit, the most of which would fill out the allotted time but for the drink traffic, a traffic bringing only evil."

HEALTH SCIENCE.—What is meant by the science of health is a question often asked. Strictly speaking it is the science of living in a healthful manner, so as to avoid disease. *Sanitary News* puts it in this way: "Sanitary science is a science that does not relate to the earth we live on or to the heavens we live under, but to the conditions of the homes we live in. We can live on the earth or under the heavens without knowing much about them, but to live best in our homes we must know them well. Geology cannot change the conditions of the earth beneath us, or astronomy those of the heavens above us, but sanitary science can change from unhealthy to healthy the conditions of the homes we live in. It touches the highest interests of mankind, cleanses and purifies the present generation, and will strengthen and will glorify posterity. The effects of obedience to its laws are not remote but immediate. They touch the everyday life of all, and enter into all the relations of life. They give strength and vigor to whatever capacity in which human endeavor is put forth." With this view of the subject, the science of health becomes one of the most important branches of study that can engage our attention.

TOPICS OF THE MONTH.

CLIMATES FOR CONSUMPTIVES.—Col. W. L. Woods, of Washington, writes us further concerning the climate of Fish Lake region in Utah as published last month. He says: "I have seen Prof. E. E. Howell, of Rochester, who has spent some time there, and he confirms all I said of the climate of this place as favorable for consumptives."

There are many grades of climate to be found between the valley and the mountain top. The streams are full of trout, and mountain quail abound. It is a region most favorable for raising horses, cattle and sheep, as well as all grains and fruits, except tropical ones. Mr. C. C. Kelly hopes to interest someone or several to build a sanitarium there for chronic invalids, who can, in many cases, be cured by the climate alone.

CLIMATE OF THE RUSSIAN RIVER, CALIFORNIA.—Our old friend and subscriber, Prof. E. E. Knowlton, writes:

I am heartily glad to hear from your dear old self once more, and to know that you have resumed the control of the HERALD OF HEALTH, that seems so identified with you that I can hardly think of one without recalling the other.

That good letter from Prof. Tyler about his health habits in the August number touched me in a tender spot, as the dear old doctor was one of my admirations when under him some thirty-three years ago. He was always a regular, typical old Greek in his sturdy manhood and independence, his love of truth and fearlessness in proclaiming it. God bless and long spare him to tell it.

This summer I spent, as is my wont, on the Russian River, of which Bayard Taylor said, in his *El Dorado*, nearly forty years ago, that its climate in the vicinity of Healdsburg, in California, came as near perfection as that of any spot he had ever found in all his globe-trottings. That is my experience. But I sincerely doubt if it will produce as long life, in the American temperament, at least, as the Eastern, for this reason: One can work every day of all the year. No stern winter comes in to set its foot down and forbid labor. Last winter there were hardly ten days in which one might not work out-of-doors with comfort, and the only discomfort would result from the wet, not from the cold. East the climate says, "Now, hold up, you've just got to rest. The cold induces sleep, promotes it, extends it, intensifies its quality and compels rest, *rest*, REST.

Of course our climate is capital for the Mexican blood; they live up to a hundred or more in it, but live less in their hundred years than a Yankee would in fifteen."

RESTAURANTS IN CHINA.—Rev. Dr. Ashmore, of Swatow, tells of the cheapness of board and living at native hotels in China. He travels and lives on his boat while away preaching, but a man informed him as to the prices at which he furnished entertainment: "One cent-and-a-half for lodging. This would insure a bed—a straw mat on boards with a bamboo pillow, a sort of quilt covering and a mosquito net. If I was hungry, and needed supper and

breakfast as well as lodging, then I should have to pay the round sum of one hundred cash, imperial Chinese brass coin, equivalent to ten cents federal currency. In the cheap lodging houses of home cities, the wayfaring man has to pay ten cents for a bed; but here, ten cents will get him a bed and two 'square meals,' and send him rejoicing on his way the next morning with the good wishes of the landlord, a very polite bow and a hearty desire to see him again, for all such are good paying patrons.

"Like all such men who know how to keep a hotel, there is a first-class wayside restaurant attached for the accommodation of day visitors. No printed menus or bills of fare are provided, but prices are uniform and firm: A bowl of boiled rice and water, one-half cent; a slice of fried sweet potato, one-tenth cent; two or three small roasted shrimps, one-tenth cent; a bowl of hard boiled rice, eight-tenths cent; a hen's egg, one-half cent; a large-sized duck's egg, one cent; an ounce of pork, eight-tenths cent; sundry vegetables, three-tenths to six-tenths cent; roast duck, or goose, or chicken, according to size of the piece and special agreement, two to four cents."

TOBACCO.—The Salvation Army expects that all of its members will abstain from the use of alcoholic drinks and give up the use of tobacco. This is practical religion. One convert who was a slave to the weed found it hard to break off its use, but was cured by the following course of reasoning. A comrade asked him the question, "What would Jesus do; would He smoke?" "This," says he, "was a presentation of the case in a new life. The idea seemed to me so ridiculously absurd that I burst into a fit of convicted laughter. I conjured up in my mind (I say it with all reverence) the picture of Jesus walking with a pipe in His mouth, or spitting out tobacco juice from His lips—that satisfied me. What would Jesus do? I wanted to do what Jesus would do, and I was convinced that Jesus would not have smoked, or chewed, or snuffed, any more than He would have committed any other impure act. I made up my mind then and there, went home and asked God for special strength to resist the desire, and He has been pleased to hear my prayer, for I have never touched tobacco since that time."

IMPROVING GRAINS.—Some eight years ago, two Englishmen by the name of Carter, of scientific attainments, undertook an experiment of crossing different varieties of wheat to obtain new and more hardy and productive sorts. They seem to have succeeded in an eminent degree. A gentleman who has visited their place sends us the statement that the cross-bred varieties are in each case superior to their parents, having greater strength, earlier maturity, bigger ears and finer corn, and last, but by no means least, a power to resist diseases such as rust, which but few of the older sorts have, and to which foreign sorts of wheat invariably succumb. It would appear, also, that the experiences of those who have purchased the seeds of the new sorts have thoroughly supported the results shown by Messrs. Carter's own experiments. We hear of varieties not only coming on "earliest of all" in different parts of the country, but the grain is also proving so good that prices far and away higher than market rates are being obtained for them.

Experiments like these have far greater value than the mere improvement of grains, for they suggest to us that as the ages roll on we shall use the laws we have discovered as applying to improving the vegetables to improving mankind; that is, we shall stop mating disease and weakness with disease and weakness, but health with health, as the Greeks did centuries ago. We shall perfect marriage, not do away with it. And being more perfect, there will be fewer separations, more happiness and a larger proportion of healthy offspring.

A SANITARY GIFT.—Dr. Francis Tumblet, a reader and admirer of the HERALD OF HEALTH, has presented to the poor of New York 10,000 tickets for a free bath in the new bath houses built for the poor, where only five cents is charged, and a cup of coffee in addition given.

This act on the part of Dr. Tumblet, who is always doing good in quiet ways, will be of real service, for a large portion of the tickets were secured by newsboys, who rarely bathe except in the river, and this can be done only in warm weather. These thousands of boys will advertise the baths to their friends and parents, and thus the cause of cleanliness and purity will be promoted.

EFFECTS OF MODERATE DRINKING.—Dr. E. C. Mann sends us his opinion on moderate drinking as follows: Alcohol does not always kill rapidly, but it kills surely, and its continual use even in daily moderation in most persons confuses the finer operations of the brain and mind. All great explorers and generals agree that its daily use diminishes the power of endurance of the individual who habitually uses it. The temporary excitement and artificial strength it imparts are at the expense of the vital force. It is not a food and adds nothing to the living tissues. It depresses vital force every time. The abuse of it means intellectual and physical death, perhaps slow but very sure. A great many men give out unaccountably in the prime of life and become invalids. Upon inquiry, we often find that these men have been, for years, moderate drinkers, and it takes months of rest and careful nursing to bring them up, so that they can get back their lost nervous force and vitality which alcohol has depressed. There is, also, mental depression and a very emotional state and insomnia. There is neuralgia also, and rheumatism, and sometimes loss of vision.

HEALTH HABITS OF LORD PALMERSTON.—Lord Palmerston had great vitality and could work hard and long without weariness. He was also an excellent sleeper, and when exhausted, could sleep until his bodily powers were restored. It is related of him that he so thoroughly appreciated the necessity of exercise to one engaged, as he was, in sedentary work, that he had two high desks, one at either end of his room. On one he did his writing standing, on the other he kept his ink-stand, so that every time he wanted ink he was obliged to walk twice the length of the room.

THE HEALTH-LIFT.—Dr. L. G. Janes has elegant rooms for giving the Health-Lift in the World Building, New York, on the 9th floor, high above all noise and dirt. This excellent Health Institution deserves the most extended patronage by our busy men, who often break down for want of care of their bodies. We saw in his rooms the other day, a man who 14 years ago was threatened with consumption. His doctor, an eminent one, said he must break up business and go to Colorado or die. He could not well do it and so went to Dr. Janes, took the lift regularly, and has been able to continue his business ever since. Such cases are not rare.

One business man says he would not take \$5,000 for the good he has received. It is preëminently an exercise for busy men who want to get the effects of thorough exercise with little effort or strain. For those past middle life it is probably the best form of exercise, gentle, but thorough.

EFFECT OF ALCOHOL ON THE MIND.—Lord Shaftesbury expressed his opinion that 50 per cent. of the cases admitted into English asylums are due to drink. Many superintendents of asylums have estimated the admissions from intemperance at 25 per cent. or higher. In the last report of the department of the Seine, in France, their deductions are that 27.4 per cent of all cases of mental diseases are due to alcoholic excess. In the report of the Scotch commissioners for 1871 their deduction is that 19 per cent. of all cases of insanity are due to alcoholic excess. The late Dr. Kirkbride of Philadelphia, a distinguished alienist and superintendent of the Philadelphia hospital for the insane, made deductions based on the admissions to his hospital for thirty-one years, showing that 22 per cent. of males and 2 per cent of females had become insane through drink. While the consumption of alcohol in France doubled between 1849 and 1869, the cases of insanity from intemperance have risen 59 per cent. with men and 52 per cent. with women, with a total per cent. of 22.31 per cent. of all cases as due to alcohol in 1872. Mr. Lunier estimates that 50 per cent. of all idiots and imbeciles to be found in the larger cities of Europe have had parents who were notorious drunkards. It is a very conservative estimate to make if we say, calculating percentages upon the total number of admissions, that 12 per cent. of the total number admitted of both sexes are due to alcoholic excess and 20 per cent. of the total number of males admitted to all American asylums. Personally it is my belief that a very much larger percentage of cases of mental disease are due directly to alcohol. The English commissioners of lunacy, in their schedule given in the report of 1877, estimate that 14.9 per cent. of all cases are due to alcoholic excess.—*E. C. Mann, M. D.*

IMPROVED METHODS OF TREATING TYPHOID FEVER.—The improved methods of treating typhoid fever are mainly hygienic. Several cases have recently been treated with remarkable success

in one of our hospitals by washing out the colon twice daily with warm water. The relief from nervous symptoms were very marked and no deaths occurred. Only one case could not bear the treatment. The diet was mainly gruel, milk not being considered a good food in typhoid by the physician in charge.

EXERCISE FOR CULTURE.—Some of our athletic associations and clubs are carrying their sports to extremes. The *underwriter* says in relation to this abuse of a good thing, "Why can we not have an athletic club whose members should all swim and wrestle and run and row for their own culture alone and not to win prizes? There are in all of our clubs such men, men of splendid physique, who do whatever they do for the pleasure of it and not for the sake of winning banners and mugs. They are the true athletes, who do not abuse their strength, who do not need to be rubbed down and groomed like a race-horse, who do not die prematurely and do not breed sickly offspring." We second the motion.

THE POPE'S HEALTH HABITS.—Pope Leo the XIII is a natural Sanitarian, and by means of his good health habits he has lived to be very old and yet very active. *Health* says, "He is a remarkable illustration of the results of a natural, simple life. There are few persons in the world, even of half his great age, who possess the clearness of intellect and the capacity for work that he displays. Yet, had he not been careful of his health, he would surely have been in his grave many years ago, for he is not, and never has been, robust. The frugal, simple, natural life of the Pope furnishes a most admirable example for those who would desire to live long, healthy, happy, and useful lives."

MORE CONSUMPTION CURES.—Dr. Koch has stirred up medical men to discover some cure for consumption. Here is one of the most novel. Dr. Barnsfother, of Cincinnati, accidentally inoculated a consumptive patient with the germs of rheumatism. The result was a cure. The microbes of rheumatism destroy or drive off the consumptive germs, as the Norway rat has driven off the common one. There is not room in the system for both. After these germs have done their work, all you have to do is cure the rheumatism. Like the doctor who could cure fits, he gave all his patients fits and then he had a disease he could manage. When will humbugger cease?

NEW YORK DOCTORS SEVENTY YEARS AGO.—Mr. Sam'l Bowne has been writing reminiscences of olden times in New York for the *Evening Post*, and this is what he says of the doctors of seventy years ago: "They blistered and bled so freely then that we gave them a wide berth. Ten grains of colomel at night, followed by a dose of jalap next morning, was a good preparation for all treatment after the patient was placed under a physician; and my mother kept her children out of the doctor's hands, the cure being worse than the disease. The plan seemed to work well, for we were never sick, and my sisters, beautiful in face and form, were known in New York as "the handsome Quakeresses." Their children have shared in the inheritance of beauty. Even in the time of the cholera, 1832, we did not leave town, but lived on the fat of the land. Every morning mother would go to market, followed by one of her servants, and there for the veriest trifle buy the delicacies of the season, fruits and vegetables; while our neighbors were living on meat and rice in crowded country inns. Nature is after all the best physician, and I thoroughly believe

That lawyers, and doctors, and ministers too,
One hundred years hence, will have very little to do.

CURE FOR SOUR STOMACH.—A Boston gentleman offers to send, free to anyone who furnishes him with a directed envelope, some leaves of the *Lencunthemum Vulgare*, which, chewed and swallowed, he says, are a sure remedy for a sour stomach. He also offers to send a package of the seeds and some young plants for ten cents. If the gentleman had given the common name of this plant he would have saved his correspondents all the trouble of writing him, for it is nothing but the ox-eye daisy, to be found everywhere and often a great nuisance to the farmer, beautiful as are its flowers in the spring. A majority of people would prefer not to have its seeds to add to the pests of their farms.

BOOK NOTICES.

DR. E. M. SCHAEFFER has sent us his paper read before the Medical and Chirurgical Faculty of the State of Maryland entitled *The Revival of Physical Culture and Practical Hygiene.*

In it he says: "I cherish the hope that physical training, which has thus risen to the dignity of preventive medicine, will prove a helpful resource in the development of the *feeble-minded* brain. Plato said to train the mind and neglect the body was to *produce* a cripple. More and more is it being appreciated that 'mental development begins with and depends upon purely physiological processes.' Dr. Seguin wanted a way into a dormant mind, and found it through 'The Training of an Idiotic Hand.' The occupations of the kindergarten represent a successful approach to this lethargic and unquickenened realm. Permanency of result necessitates structural improvement. It is easier to act upon the centers from the periphery than upon the periphery from the centres [Seguin]. Physical training has proved itself in the case of youthful criminals and dullards 'an end to cerebral activity and mental increase.' Mental development and culture ignoring the fact of a physical basis soon resolves itself into a study of pathology and morbid anatomy [Wey]. The test of the 'good and faithful servant' specifies the comforts and help accorded the *physical* man in distress; moralizing seems a better application afterwards."

FROM the Emerson College of Oratory, Boston, we have also a work entitled Physical Culture, by Charles W. Emmerson, M.D., LL.D., President of the College. The work is well illustrated, and the exercises prescribed are all done without apparatus of any kind. We have tested nearly all of these and find them excellent. Dr. Emmerson deserves the thanks of all for what he has done and is doing in connection with his famous school for the bodily welfare of the race.

Some of these exercises are suited particularly to the consumptive, especially when combined with vocal culture. Dr. Emmerson *himself*, we have been told, was well advanced in consumption in early life, and was only thoroughly cured after giving up all medical treatment and devoting himself to physical culture. Today he is a strong man, capable of almost continuous work. We hope to have a statement of his experience for our journal some time in the future. Price, \$2.00.

THE CLIMATOLOGIST is a new monthly edited by Drs. Keating, Packard and Gardner, which shows that hygeo-therapeutics is

every year growing in favor. Speaking of the healthfulness of the climate at Bethlehem and Maplewood in the White Mountains, N. H., for children, Dr. Geddings, in a leading article, says: "At no resort have I known children to thrive as they do here. They gorge themselves with what elsewhere would be regarded as indigestible food with perfect impunity; they get soaked to the skin and rarely take cold, and there appears to be no limit to their endurance of fatigue. Cases of cholera infantum contracted near the coast recover promptly when removed to the mountains, while the convalescent regain their strength with surprising rapidity." Published by W. B. Saunders, Philadelphia.

PUBLISHERS' NOTES.

Will such of our subscribers as are in arrears kindly remit the amount due from them in order that their accounts may be settled before the new year?

A GOOD PREMIUM.—Please observe the premium of a fountain pen, mentioned elsewhere. Mr. Waterman, the inventor of this pen, takes the greatest pride in it, makes everyone as perfect as he can. We have used no other for many years. Properly cared for, it is a comfort to the owner and saves him much annoyance. Mr. W. will mail each pen, by registered post, and guarantee satisfaction. We hope for a large number of orders for it.

THE HERALD OF HEALTH.

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HERALD OF HEALTH.

Forty-first Year.

NOVEMBER, 1891.

No. 11.

PHYSICAL DEVELOPMENT OF THE CHEST.

BY GODFREY W. HAMBLETON, L. K. Q. C. P. I.,

President of the Polytechnic Physical Development Society.

Nearly twenty years ago I commenced the investigation of this subject. Then I showed that the size and shape of the chest varied as I varied the conditions to which it was subjected. For example, when I submitted a chest to conditions that tended to develop it, that chest increased in size and its form or type changed accordingly. When I submitted a chest to conditions that tended to decrease it that chest decreased in size and changed its form or type accordingly. I ascertained that those results were absolutely invariable, and could be carried out within such wide limits that on the one extreme they embraced the class of the non-survivors, through consumption, and on the other the finest physique of the class of the survivors or fittest. I pointed out the fact that we had an example of one type of chest forming a series of types that have varied precisely as the conditions to which it was subjected have varied. At birth the male child of all classes has the same type of chest, but at maturity he has that of the class to which he belongs. We have the same relationship between conditions and type; on the one hand, in those who use wind instruments, or who by their occupations require to greatly use their lungs; and on the other, in those who spend a great portion of their time in a stooping position or who compress their chests either by the instrument they use in their work or by a corset. The great de-

velopment of the muscles of the trained athlete and the wasted muscles of the paralytic are due to the conditions of their use and disuse respectively. We know that the head has been altered in shape by direct pressure, and that the greater size and the more complicated arrangement of the brain of an European to that of an aborigine of Australia is produced by the greater mental training of the former. The difference between the hands and fingers of a pianist and those of a man accustomed to lift heavy weights is produced by the conditions of their occupations. Upon the presence and absence respectively of shoes depends the difference in the size and shape of the foot of a Chinese lady and that of a woman in the uncivilized state. The color and thickness of the skin varies according to the condition to which it is subjected, and there is the same relationship between the size and shape of each part of the body and the conditions to which it is subjected. Therefore, the type of man after birth is solely produced by the conditions to which he is subjected. Hence the formation of a race by man's continuance under the same conditions, and its subsequent division into sub-races and families by his migrations into new conditions and the minor differences therein. Hence also the difference between the same species of animals under the conditions of nature and of domestication, between the products of the same seeds when sown in different localities, between the same plants when placed under different conditions, and the return of man, animal or plant to former types when they are subjected to the conditions that produce that type,

It would be difficult to overestimate the immense importance of the facts just briefly referred to. They prove to us beyond the possibility of a doubt that man is what his habits and surroundings make him, that he is a member of the class of the survivors or fittest because the conditions, as a whole, of his habits and surroundings are favorable to him, and he is a member of the class of the non-survivors, those who prematurely disappear, because the conditions, as a whole, of his habits and surroundings are unfavorable to him, and that he can so order his habits and surroundings that they shall tend to his advantage. A great work and a great future lies straight before us. *We have to ascertain the tendencies of all the*

conditions to which our bodies are subjected by our habits and environment in order to apply that knowledge to our own protection and advantage. And that is the sphere of true physical development.

An important step towards the attainment of this great object has been taken by the formation of a society to apply the principles of physical development in the ordinary routine of daily life. Some twenty-five members joined at the first meeting of the Polytechnic Physical Development Society. Now, upwards of three hundred members have entered their names on the books, and when the society is better known and the great benefits it does confer are recognized, I do not doubt that number will be considerably increased. At Leeds I gave the results obtained by a hundred members. The average increase of their chest girth was $1\frac{3}{4}$ inches. I divided them into three classes, the average increase of the chest girth of the third class being $1\frac{1}{4}$ inches, that of the second class being $2\frac{1}{8}$ inches, and the first class $3\frac{3}{8}$ inches. There has been a considerable increase in the range of movement of the chest, the average then being, I think, $4\frac{1}{2}$ inches. Hutchinson's standard of vital capacity has been greatly exceeded, and in the power of inspiration and of expiration the majority belonged to or exceeded his "remarkable" and "very extraordinary" classes. At the subsequent examination for the society's gold medals, the first medallist had obtained an increase of the chest girth of $6\frac{1}{2}$ inches, the second an increase of 5 inches, and the third $4\frac{3}{8}$ inches. The society's medals for the best physique were awarded to members who had exceeded Brent's "medium" standard by 3.67 inches, 2.42 inches, and 3.32 inches, and twenty certificates were given to those who had obtained and exceeded that standard. I am glad to say that increase continues. We have just held our second general annual meeting, and I find the average increase of the chest girth of 100 members is now 2 inches, that of the third class being $1\frac{3}{8}$, the second $2\frac{1}{4}$, and the first $3\frac{5}{8}$. That increase has taken place in small as well as in large chests, whether the men were tall or short, under or over twenty-one years of age, and with or without previous gymnastic training. Our members are eight to twelve or fourteen hours daily in over fifty different trades and occupations, amongst them being clerks, compositors, print-

ers, watchmakers, carpenters, engineers, drapers, warehousemen, etc. The variations in the chest girth and vital capacity that have taken place are most instructive. I have frequently noted a large decrease when the members were training too much in the gymnasium, or engaged in extra work, stock-taking, cycling, and when they neglected to follow the directions given them. In fact, the increase or decrease observed has been in direct relationship with a corresponding change in the conditions of their habits or surroundings. It is satisfactory to note that the number of chest girths of from 38 to 40 inches and upwards is steadily increasing. We have also many members who have nearly attained Brent's "medium" standard, which is 5.40 inches above the average of the artisan class, and 3.17 inches above that of the most favored class. The importance of these facts will be seen when it is borne in mind that this is a new society, carrying new principles into practice, that its members are placed under more or less unfavorable conditions, that it is purely voluntary, and that its members leave us when they leave the institution.

Perhaps the best way to explain the practical work of the Society is to describe what happens to a new member on joining it. He is placed in an erect position, his shoulders are brought well back, and his clothing so loosened over the whole of the chest that it permits full and free movement. I find in nearly every case the clothing is from one to two inches or more too tight. Then he is shown the simple movements that are necessary to throw the weight of the shoulders on the spine, he is taught to inhale and exhale deeply through the nose, and to use the spirometer and manometer. We explain to him that the conditions of his habits and surroundings tend either to his injury or to his advantage. He is told to avoid those that tend to act injuriously, and where that is not possible or practicable, to ascertain their amount and to counteract their effects and to place himself under those that tend to his advantage. We request his careful attention to these conditions, and deal first with those that have to be avoided. The habit of stooping, positions that cramp or impede the full and free movement of the chest, or a faulty carriage of the body are very injurious. Habits that tend to the disuse of the muscles or to

their excessive use are to be avoided. Breathing through the mouth, or breathing air that has a temperature much above that of the external air, or that is impure, or that contains dust, is very injurious. Wearing tight-fitting or too heavy clothes, braces, corsets, or shoes with high heels and narrow toes, tends to impede the full and free movement of the body and is injurious. And whatever of his habits or surroundings tends to act injuriously or to produce such acts must be avoided. We tell him to acquire the *habit* of holding the body erect, the shoulders back, and the chest well forward; to breathe through the nose, and to take deep inspirations followed by full expirations several times daily; to develop the muscles, especially of the chest, by gymnastic exercise on Ling's system; to go in for the daily tub or swimming; and to have the clothes made quite loose at full inspiration, and to see that they do not impede either by their weight or shape the free movement of the body. We advise him to live in rooms that are in free and direct communication with the external air, night and day, summer and winter, and to take care that their temperature is not too high; to spend as much time as possible daily in the open air, and to maintain the temperature by muscular exercise. We point out to him that walking is a most healthy exercise, and that broad toes and low heels tend to promote it. We tell him to practice singing and to take advantage of some form or other of athletics whenever the opportunity presents itself. And whatever of his habits or surroundings tends to his advantage or to produce acts having that tendency must be adopted.

We are all of us at all times subjected to unfavorable conditions that we cannot, under present circumstances, avoid. For example, it would be difficult to be present at any public meeting in a large building without having to inhale both impure and overheated air. But when we have obtained a certain amount of physical development, a few deep inspirations followed by full expirations in the open air will be sufficient to counteract that. Again, the occupation or business in which we may be engaged may necessitate a somewhat cramped position of the chest, but on leaving a trained man will soon obtain compensation for that by holding the body erect and taking proper breathing exercise.

The main point is to ascertain our unavoidable injurious conditions, and to arrange the other conditions so that *the tendency of the whole* is decidedly in our favor, and it will take a well-developed man—and by that I mean a man having a physique between Brent's *medium* and *maximum* standards—but little time and trouble to accomplish that. These directions are very simple, easy to carry out, and in one form or other are within the power of each one of us. But they effect a complete change in the conditions to which the body is subjected, and to make that change with safety it must be slowly, gradually, and uninterruptedly effected.

I will now point out some cases in which physical development is urgently required, and where its adoption will render an immense public service. Take the case presented by the army. Considerable attention has recently been directed to the large amount of inferior physique that is present in the ranks. On the 1st of January, 1889, the army numbered 202,761 men, but of these there were 82,979 whose chest girth was *under* 36 inches—that is, from 31 inches up to 36 inches—and only 16,324 who had a chest girth of 39 inches and upwards. Now on Brent's "medium" standard there ought to have been none under 36 inches, and 67,236 ought to have had a girth of 36 inches and upwards. There is, however, another mode of showing the presence of this inferior physique, and that is by the great liability of the army to disease under ordinary circumstances. During the year 1888 there were 193,233 admitted into the hospital, 1,845 died, 2,078 were sent home as invalids, 2,776 were discharged as invalids, and 10,715.97 were constantly non-effective from sickness. It is obvious that had the men been of good physique, and subjected to fairly good conditions, there would not have been anything like this serious amount of sickness, invaliding, and death. Why should not these men be placed in a position to successfully compete with the unfavorable conditions of their surroundings by the introduction of physical development?

A reference to the tables in the supplement to the Registrar-General's Report, showing the comparative mortality of those engaged in different trades and occupations, will show the necessity for the diffusion of the knowledge of physical development

amongst those engaged therein. Life assurance and sick benefit societies would not only considerably add to their incomes and increase their stability by the recognition of this relationship between conditions and type, but they would also by that very act become powerful agents in the promotion of national physique and public health. The introduction of physical development as a necessary part of the education of children is urgently and imperatively demanded. They have a splendid type of chest at birth, the proportion of chest girth to height being a little above Brent's "maximum" standard, but under the present system of bringing up children, they are, from the moment of birth right through the whole course of modern education, submitted to unfavorable conditions, so that for a height of 51.84 inches there is a chest girth of 26.10 inches, instead of one of 35.18 inches, or a loss in about ten years of nearly nine inches. Here you have the best standard of chest girth. Is it too much to ask that the conditions of the child's surroundings, as a whole, shall be so arranged that it may be retained? Look at the poor, puny chests we meet with everywhere, and at the reports of the Registrar-General, and then we shall see the grave responsibility that lies upon us for producing such a change and permitting it to continue.

The cases just noted evidently require the introduction of physical development, but where shall we find a man, a woman, or a child in civilized countries upon whom its adoption would not confer a great benefit? We are here face to face with a work so great that it will require all the intelligence, the energy, the influence, and the means of a well-organized body to accomplish it. The workers are here, an important section of the public is ready to co-operate, and the time for action has come. Why should we not have a National Association to meet this great national want?

NOTES CONCERNING HEALTH.

BY THE EDITOR.

NO VACATION.—The editor of the *Journal of Commerce* has taken no vacation for forty years. He holds to the view that the ordinary vacation in summer time does more harm than good. This he has observed in many cases. The comforts of a home, with running hot and cold water, a well ventilated house, a healthful table, and regular but not excessive work, are more likely to promote health than the conditions of life that usually prevail when one is away from home. No doubt there is some truth in this. How is it, however, with those whose homes are not so well supplied with sanitary conditions, and who have better conditions when they leave them. Besides, do we not, most of us, need a change of scene, surroundings and something to bring us into relation to new thoughts and new life.

HEART FAILURE.—Heart failure is a term coming into general use in medicine, and hardly needs to be defined. No one dies unless the heart fails to keep the blood circulating, and in a sense, all die of it and all must. It is, however, more than probable that heart failure is due to a failure of the nervous system to supply it with nerve force, and, so, we might call it nerve failure quite as properly. If one would keep the heart from failing, let him keep the nervous system in as good health as possible.

CONSUMPTION FROM MILK. Dr. Zuell, at a meeting of the Philadelphia Veterinary Medical Society in Philadelphia, recently made a most astounding statement: "that the greatest scourge, consumption, emanates from milch cattle and is spread by them through the human family. Is it not an undisputed fact that tubercular diseases are found among people that use the milk and flesh of the bovine race, and that these diseases are not found among those people who do not? The Khirgis," said he, "who inhabit the steppes of Asia, have no cattle. They drink the milk of mares and eat the flesh of sheep and goats. Phthisis is absolutely unknown among them. The Esquimaux who reside in Greenland

and other Danish countries, have cattle, and hardly anybody is more subject to consumption. The Esquimaux who drive their fleet-footed reindeer over the ice-covered plains of Siberia, and to whom an ox or cow is an animal as rare as an elephant is to us, know not what consumption is. On the south coast of Africa are tribes of natives who pride themselves on their herds of cattle; who both drink the milk and eat the flesh. These people die like flies from tuberculosis. One hundred miles inland on the plateaus, where the deadly tze-tze fly places an absolute bar to the existence of cattle of any kind, there is no knowledge that even one man ever died of pulmonary consumption or other tubercular disease. The people of Iceland have cattle, but they neither drink the milk nor eat the flesh. Among them consumption is practically unknown. In Australia and New Zealand, countries by nature utterly unacquainted with the bovine race, there was a time when phthisis had never been heard of. In 1826 the cattle mania seized the people. Cattle were imported in enormous quantities, and to-day these countries are hotbeds of consumption, where the mortality reaches thirty out of every thousand inhabitants, and six per cent. of all deaths are attributed to this disease. In New Zealand it has made such ravages that the native Maori is to-day almost an extinct race. In Switzerland the carefully kept mortuary statistics show beyond question that consumption reigns in exact proportion to the number of cattle kept and used. When cattle are most numerous the deaths are many. Up in the mountain, where only sheep and goats can live, the disease is almost unknown. The facts also show that the tendency to tuberculosis is most dangerous in the families of cattle that are inbred."

FILTERING WATER THROUGH SPONGY IRON.—Mr. Devonshire describes in the *Sanitary News* a process used in Antwerp, consisting of a layer of powdered or spongy iron, made by heating hematite ore. William Anderson has devised an apparatus by which the powdered iron is revolved in a cylinder as the water is made to flow through the latter, by which means it is claimed there is a thorough purifying of the water before it is passed through the sand filters. This process is being developed in Chicago for the purification of drinking water on a large scale, and it is

claimed that it is the best form of filtration now known. It does not become foul by use as does sand and charcoal filters.

PERFECT HEALTH.—Dr. A. Wilson says: "The possession of perfect health is the first great essential for happiness; it is equally the first essential for the perfect exercise of mind; and it therefore forms the first item for our consideration when we ask the question, Is life worth living? To the healthy man or woman who takes care of the body, all things in the way of advance and enjoyment, physical and mental, are possible. Conversely, with a body weakened, no matter how or why, most things become impossible, or, if not actually unattainable, they are at least achieved with difficulty, and through pain and tribulation of spirit. Sound health is the first condition for enjoying life; and, if we reflect upon the common causes of life's failure in a social sense, we may easily prove that much of the want of success is due to physical incapacity to enjoy existence. This incapacity, again, largely arises from the lack of knowledge about health and its laws."

KEEP WARM.—Now that cold weather is approaching, invalids may be profited by the advice of Rose Terry, who says: "If you want to be happy, keep warm. Women are eaten up with neuralgia, say the doctors. No wonder. They sit still all the morning by a hot register, then tie the five or six-inch strip of bonnet over their back hair, a bit of lace film over their bangs, put on kid boots, with silk or thread stockings underneath, and dawdle along the pave with bitter winds of winter smiting their temples, their delicate ears, their throats, and the bases of what should be their brain. Their outraged nerves shrink and quiver under this barbarous exposure. But no matter; their chest is well covered with fur cloaks and sacques, but cold feet, the numb ears, the reddened temples, the exposed neck, will have their own story to tell. Then you won't wear flannel next the skin. Why? Because your waists will look too large, and it is the style to be as near in shapeliness to that delightful and lovely insect, the wasp, as humanity can be forced. Do you really like to ache and groan and to be laid aside every few days with agonizing headaches or panting, laboring hearts? Strange, if true!"

TO PREVENT COLDS.—A lady correspondent of the *Call* writes : “Every one knows how wet the backs of shoes and hose get by the bottoms of the skirts hitting them. More colds are caused this way than any other. Rubbers protect only the bottoms of the feet. Rubber boots cost but little more and will outlast a dozen pair of ordinary rubbers. The writer wears a pair of woolen socks over her hose, in the boots, an old dress skirt that water and mud will not hurt, a good gossamer and an umbrella, and goes perfectly dry in the heaviest rain, has no skirts to hold up, and carries her shoes or slippers if going to stay anywhere. Of course, white skirts are left at home, or carried with the shoes and another dress if desired.”

CIDER AND HEALTH.—Dr. E. Cheney, himself an example of robust health, says of cider : “I had an uncle who made a fortune from an apple orchard. He did not dress the trees with cider, but with manure and gave them water as they needed. For such reasonable care he was rewarded with abundant fruit. Has any one a plant, valued almost as an only son, who is foolish enough to break bottles of beer, wine or whiskey about it? Should this be done, the fig tree by the wayside, with the curse upon it, would illustrate the mistake. Why, then, wet down this higher organism with such unnatural fluid? Can it quench thirst or dissolve nutritious substances better than water? Nay, verily, water—water with the acids and alkalies of the body—is the true solvent. There is nothing alcohol can do but oppose and hinder, since it is in direct antagonism to the various elaborating ferments. Therefore, as a fluid for the body it is not needed. Its use is harmful.”

BANANA JUICE FOR CHRONIC BRONCHITIS.—The *Medical Times* says : “The juice of bananas is recommended as a remedy for chronic bronchitis with insufficient expectoration and marked dyspnoea. A drachm eight or ten times a day during the first days is usually prescribed, and later the dose can be diminished. The syrup is prepared as follows : Cut the fruit in slices and place in a glass jar ; sprinkle with sugar and cover the jar, which is then enveloped in straw and placed in cold water, and the latter is heated to the boiling point. The jar is then removed, allowed to cool, and the juice is poured into bottles. To this we may add that the juices of other fruits, with sugar, is equally good.”

SAMOA CLIMATE FOR CONSUMPTION.—Mr. Robert Louis Stephenson, the famous author of *Dr. Jekyll and Mr. Hyde*, being a victim of consumption, has chosen the climate of Samoa as a permanent residence. A writer who has visited him at his home says: "I was surprised to find great wide open fireplaces in every room. Fireplaces in Samoa, where there is perpetual Summer! The explanation is easy. Mr. Stephenson has traveled all over the world to find a place where a victim of the scourge of consumption may find a safe haven. He almost believes that he has found it on the Island of Upolu. Not quite sure that cold winds may not sometimes blow even there, he has built his house to meet any emergency. It can be thrown open so that the perfumed zephyrs of the tropics may blow through every apartment, or it can be closed tightly to exclude any stray breeze from the frigid north. The fireplaces are large enough to contain great logs of wood, such as one finds in the old Colonial houses in parts of New England. Mr. Stephenson is afflicted with consumption in an advanced stage. He is fighting the disease bravely, and while he may never become a strong man physically, it is evident that he has stopped the progress of the malady, and that he may live to a ripe old age in his new home. One of our cold northern winters would surely kill him as certainly as would a cannon ball. I asked him if he ever contemplated returning to Europe or America. 'No,' said he, 'I hope to have my place here so beautiful in time that no one would want to leave it.'" Fortunate is Mr. S. in having an income large enough to indulge in a home where his life may be prolonged.

BATHS FOR ELDERLY PERSONS.—When age begins to stiffen the frame and reduce its flexibility, the warm bath is often a most useful antidote. Dr. Emmerson, in the *Annals of Hygiene*, gives his experience, which, though similar to many others, is worth reproducing. He says: "I have for a long time (being now past 67) suffered from muscular rheumatism, being feverish from weakness of the muscles. I had for a long time known that old people actually dry up so that the tissues become inactive. I also have known that to use a very stiff scrubbing brush vigorously would toughen the parts and clean the skin ready for ab-

sorption, through the pores, of moisture, so that by lying in a tepid bath with the water at from 88° to 92° Fahrenheit for from a half to one hour, the body would actually absorb by weight from two to three pounds of water. Benjamin Franklin, at about sixty, began to feel greatly the encroachments of old age, so he went to Dr. Darwin for advice. The doctor recommended to him the lukewarm bath, to be taken twice a week. Franklin followed this advice, and very soon noted the beneficial effects of these warm baths upon his aged body. He is said to have continued their use up to within a short time of his death, which was at eighty-four. The bath restores elasticity and smoothness to the skin; it loosens the tissues, and thereby brings back fullness and roundness to the limbs. It prevents eruptions of the skin, and where present, it removes them often, even from the face. It prevents the body giving off too much heat, which enhances nutrition. It is well to commence with these baths as soon as the first infirmities of age begin to make themselves felt, between the fiftieth and sixtieth year. Two or three baths should be taken every week. As the water cools off, hot water must be added and the thermometer consulted. The best time for bathing is the forenoon, about two hours after breakfast, or the afternoon, about four hours after mid-day meal. After the bath the body must be well dried and rubbed with coarse towels. Baths either too hot or too cold are dangerous to old people."

BEER CHILDREN.—Some Germans believe that beer is like milk, a nourishing food, and allow it to children at the table quite generously. Many physicians have admonished parents against this, but to little effect. Prof. Demme attributes this partly to the fact that the hygienic influence of the use of spirituous beverages on the youthful organism have not been stated with sufficient clearness and for this reason have escaped adequate attention. Having filled for many years the position of director of the Jenner Hospital for Children, at Bern, he had an opportunity of observing the injurious influence of the use of alcohol on children, and says: "The entire and great injury which the abuse of alcohol works in adults manifests itself with much more rapidity and energy in the youthful organism, and numerous disturbances of

nutrition, nervous diseases, and especially the much talked of nervousity, are its immediate consequences. But above all it is ebriosity itself that is engendered and developed by this habit, the early custom of stimulation calling for renewed and increasing satisfaction." Demme demonstrated by continued measurements in many cases of children, that after complete suppression of the use of alcohol a gradual increase of their longitudinal growth manifested itself, which was of considerable proportions in comparison with their former growth.

TEN FAMILIES OF DRINKERS, AND TEN OF SOBER MEMBERS.—Demme studied ten families of drinkers and ten families of temperate persons. The direct posterity of the ten families of drinkers included fifty-seven children. Of these twenty-five died in the first weeks and months of their life, six were idiots, in five children a striking backwardness of their longitudinal growth was observed, five were effected with epilepsy, five with inborn diseases. One boy was taken with chorea and became idiotic. Thus of the fifty-seven children of drinkers only ten, or 17.5% showed a normal constitution and development. The ten sober families had sixty-one children, five only dying in the first weeks, four were affected with curable diseases of the nervous system; two only presented inborn defects. The remaining fifty—81.9%—were normal in their constitution and development. From this series of investigations we derive "the sad truth that among the children of drinkers the prevailing mortality is fearful, that the surviving portion represents a pitiful crowd afflicted with unsoundness of mind, idiocy, epilepsy and other disturbances of their nervous system, and that only a very small proportion of the descendants grow up as useful members of society."

ALCOHOL AS A MEDICINE.—"After an ample clinical field of observation, in both private and hospital practice for more than fifty years, and a continuous study of our medical literature, I am prepared to maintain the position, that the ratio of mortality from all the acute general diseases has increased in direct proportion to the quantity of alcoholic remedies administered during their treatment. How can we reasonably expect any other result from the use of an agent that so directly and uniformly diminishes the cerebral,

respiratory, cardiac and metabolic functions of the living human body? Both the popular and professional beliefs in the efficiency of alcoholic liquids for relieving exhaustion, faintness, shock, etc., are equally fallacious. All these conditions are temporary and are rapidly recovered from by simply the recumbent position and free access to fresh air. Ninety-and-nine out of every hundred of such cases pass the crisis and begin to revive before the attendants have time to apply any remedies, and when they do not, the sprinkling of cold water on the face and the vapor of camphor or carbonate of ammonia to the nostrils, are the most efficacious remedies, and leave none of the secondary evil effects of brandy, whiskey or wine. Indeed, whenever a person affected by sudden exhaustion or syncope is able to swallow wine or whiskey, he is in no immediate danger of dying; and yet the recovery is always attributed to the last remedy given, even though its real influence may have been injurious to the patient."—*Dr. N. S. Davis.*

CONTAGIOUS POWER OF MEASLES.—Until we discover the pathogenic microbes of the eruptive fevers and their conditions of activity, we are forced, in order to defend ourselves against these enemies, which remain constantly concealed, to suppose their biology similar to that of microbes we do know, and to direct against them the same system of defence as we do to the others. With a view to this the instructions of the Consulting Committee of Public Hygiene in France direct that the room occupied by a patient with measles shall be disinfected, as well as any objects contaminated by such a patient. It must, however, be admitted that clinical and attentive epidemiological observation can supply the want of microbiological facts, and that the knowledge of the habits characteristic of a given complaint is quite capable of enabling us to judge of the value of this or that prophylactic measure.

SMALL VITALITY OF MEASLE GERMS.—It has long been known that the germ of measles has only small vitality. This is Gracher's opinion and also that of Sevestre, who feels warranted in assigning to it a survival which does not exceed, even if it attains, a limit of three hours. Without fixing any such exact limit, M. Bard is satisfied with saying that the length of time is in every

case shorter than it would be necessary for the preparation for any sort of a process of disinfection. His opinion is based on an epidemic of measles which he has just been following among a body of children, under conditions eminently favorable for accurate observation. As no case of transmission came to his notice except those caused by direct contagion, due to the presence in the establishment of a child with measles and to direct relation between the sick child and the one that caught the complaint, he not only had no reason to regret his inability to disinfect the apartment, but he even considers the carrying out of these directions as perfectly useless, as a thorough airing of the room and objects of furniture is quite sufficient in cases of measles. Quite otherwise is it with scarlatina, the germs of which survive for months and, perhaps, years, rendering immediate disinfection and cleansing highly important.

PERIOD OF INCUBATION OF MEASLES.—While the germs of measles are short-lived, the disease is very contagious, so much so that any one who has not had the disease is almost certain to take it when directly exposed. The period of incubation, counting from contact to eruption, is thirteen or fourteen days in the great majority of cases, but that in exceptional cases it may fall as low as twelve, or rise as high as eighteen or twenty-one when the receptive power has been weakened by a previous attack. In general terms the weaker the degree of receptivity and the milder the disease the longer the period of incubation.

WHEN IS MEASLES CONTAGIOUS.—The child sick with measles may give it to others, three, and possibly even four, days before the eruption comes out, but it is not contagious at the period of desquamation, as is still believed by many persons. With children who are left together during the entire pre-eruptive period contagion usually takes place two days before the eruption. If, on the one hand, we consider the extreme receptivity that exists toward the disease, and, on the other, the difficulty of making an exact diagnosis of a contagious complaint while it is not yet characterized by a cutaneous eruption, it becomes easy to understand how troublesome, or even impossible, it is to check an epidemic that is progressing.

OF INTEREST TO WOMEN.

BY JENNIE CHANDLER.

EDUCATING GIRLS ABROAD.—Among a certain class of Americans it is considered the proper thing to send the girls of a family abroad to educate them. The question often comes up if this is wise. In certain things no doubt it is necessary. If the girl is to be a musician, to follow this art as a profession, no doubt there are some advantages abroad, but in most cases our own schools are far better. From the standpoint of health also we would educate girls at home. The *Ladies' Home Journal* has a good word on this subject. It says: "One of the greatest objections to the pension or boarding school is the insufficient diet. European cooking is so different from American, and, at first, so unpalatable, that young girls, who ought to have appetizing and nourishing food, and plenty of it, could not be sufficiently fed." The objection of insufficient diet formerly prevailed in our own schools, but except in a few inferior ones, this is no longer the case. Let us perfect our American schools and patronize them in preference to those of any other country.

NEWARK GIRLS.—The Superintendent of Police in Newark, N. J., has some queer notions about girls, and has, we hear, ordered any one of them out alone, after nine o'clock, arrested, no matter how orderly they may be. An exchange remarks on this order that it would be far better for the superintendent to "see to it that every street and public place is so well guarded that young girls and grown women may freely frequent them in the evening without fear of harm or suspicion of wrong. When that is done there will be no occasion to assume that every girl under sixteen who goes out of an evening after working all day is intent upon misbehavior."

DUST IN OUR ROOMS.—Few of us know to what extent dust may sometimes exist in the air of our rooms. An English scientist has invented an instrument to estimate this and the results are rather

startling if true. Here are his figures. The number of particles of dust is per cubic centimetre, which is about two-fifths of a cubic inch:

Open country in winter—

Scotland, the air being clear.....	500
“ the air being very thick.....	9,500
Seashore, air clear	5,000
Edinburgh, air clear	45,000
“ air not clear.....	250,000
Ventilated room with gas-flames, sample taken near floor... ..	275,000
Ventilated room with gas-flames, sample taken near ceiling.	3,000,000

If these figures have any close relation to truth, it is no wonder that living too much in the house is a frequent cause of consumption and physical weakness.

HEALTH.—Mr. Abel Andrew writes to the *Vegetarian Messenger* that “Health is a seamless garment, woven from the top throughout.” Even the classes—the ‘upper ten’—have a very foggy idea as to what constitutes health. Lord Tom Noddy treats his body like some folks treat their dogs. He first abuses, then he pets it. Those enemies to health—late hours, rich food, and dissipation—are allowed to work their own sweet will. They are allowed, metaphorically, to kick and cuff the poor frame through the unquiet hours of the season. When his lordship is used up he puts on the brake; when he is nearly dead broke the bank suspends payment. In plain words, when he is bankrupt in health, as well as in pocket, he thinks it about time to go, as sailors say, ‘on a fresh tack.’ So now he pets and coddles his ill-used body. He betakes himself to some fashionable health resort. In the cant language of the day, he does his ‘cure.’ He acts ‘the cure,’ whether he makes one is quite another thing. This is not the way to attain health. In music hall parlance, Lord Tom may be a cure, ‘a perfect cure,’ but he is not a wise man. The o’er-weighted brain, the fatty heart, the hobnail liver, the wheezy lungs, the loaded blood, if once out of order, take time to mend—years of time and self-denial—if, perchance, they are ever again serviceable. The fashionable Æsculapius knows this right well. He also knows which side his bread is buttered, so he ‘coddles to

Codlin,' the Codlin of rank. Health is not to be got by drinking nauseous water for a couple of months. The body is not a dog to be kicked one day and patted the next. Health is a seamless garment. In order to enjoy true health, a consistent course of life is absolutely necessary. The fair goddess Hygeia abhors all monkey tricks. She is not to be fawned upon one day and flouted the next. She loves true worshippers, and detests hypocrites. On the real devotee she sweetly smiles, and frowns on make-belives."

PHYSIOLOGY OF STARCH DIGESTION.

THE following experiments in starch digestion were made by John Goodfellow, F.R.M.S., Professor of Physiology and Hygiene in the Bromley Institute, England, at the request of Dr. Densmore, of New York, and published in his journal, *Natural Food*.

Experiment 1. Fifty grains of the crumb of white bread without admixture with anything else, were thoroughly insalivated for sixty seconds. The bolus was then expectorated into an acid medium and the mouth rinsed out with distilled water. The washings were added to the tube containing the bolus. The diastasic action of ptyaline was thus arrested at the end of about sixty-five seconds. The bread was then analysed, and its composition compared with that of the bolus, with the object of ascertaining how much starch had been converted into sugar by the action of ptyaline.

	100 parts of the dry solids of the bread before insali- vation contained:	100 parts of the dry solids of bolus, etc., free from acid and mucous, contained:
Albuminoids.....	12.5	12.5
Starch.....	75.4	67.6
Sugar.....	6.0	12.2
Dextrine.....	3.0	4.6
Fat.....	1.6	1.6
Mineral matter.....	1.5	1.5
	100.0	100.0

From the experiment I conclude that about ten per cent. of the gelatinised and broken-down starch of dry bread is converted into sugar and dextrine during *thorough insalivation*.

Experiment 2. Fifty grains of the same bread were taken and moistened with tea, and insalivated for the average time that is allowed by most people for moist foods (15 seconds were allowed), and the bolus treated in the same way as in the first experiment in order to arrest the action of the ptyaline. The following table gives the amount of starch and sugar before and after insalivation:

	100 parts of the dry solids of the bread before insali- vation contained:	100 parts of the dry solids of bolus, etc., free from acid and mucous, contained:
Albuminoids.....	12.5	12.5
Starch.....	75.4	73.8
Sugar.....	6.0	6.5
Dextrine.....	3.0	4.1
Fat.....	1.6	1.6
Mineral matter.....	1.5	1.5
	<hr/> 100.0	<hr/> 100.0

From this experiment I conclude that only two per cent. of gelatinised starch of moistened foods is converted into sugar and dextrine in the mouth under ordinary circumstances.

Experiment 3. One hundred grains of ordinary oatmeal porridge mixed with milk and cane sugar were insalivated for four seconds (by a number of observations it was ascertained that four seconds was the average time during which porridge was allowed to stay in the mouth). The diastasic action was arrested in the same way as in previous experiments. The analysis of the porridge before insalivation, including milk and sugar, gave the following results in 100 parts of dry solids.

Albuminoids.....	17.5
Starch.....	60.4
Dextrose }	6.7
Maltose }	
Lactose }	
Sucrose.....	3.1
Fat.....	10.2
Mineral matter.....	2.1
	<hr/> 100.0

No very great difference in composition could be detected after insalivation. There was a very slight increase in the quantity of sugar (dextrose and maltose) representing *not more than* one-half per cent. of the starch.

The results of these experiments support the view that very little starch of our foods is converted into sugar in the mouth during ordinary mastication. They also point to the conclusion that the function of the saliva is mainly mechanical, in moistening the buccal cavity, and in facilitating the formation of a bolus.

The object of these experiments was to show that starch which is consumed so largely in our food, is not digested to any great extent in the mouth, and consequently it is not wise to consume it in our food so largely as we do. It must also be said that the digestion of starch goes on in the stomach directly after swallowing and before the acids of the gastric juice have been secreted in sufficient quantities to stop the process.

REMARKS BY THE EDITOR.

AFTER the food has passed into the duodenum, there again starchy food has its digestion completed. We know by experience that people do thrive and enjoy excellent health when starchy food is consumed in quite large quantities.

The question, however, may be very pertinently asked, if it would not be wiser to consume more sweet foods which need no digestion, as it is into sugar that the starch is finally converted when digested.

The Arabs and other eastern people use dates and figs which are non-starchy and maintain great vigor on them.

That persons with weak digestions do not handle starchy foods well, is also true. Such toast their bread to change the starch into dextrine, a form of sugar; they boil for a long time their oatmeal and bake the potatoes they eat for the same reasons.

It has been suggested that a single experiment like that given in Prof. Goodfellow's paper is hardly sufficient to settle so important

a question, and this is true, but we are informed that the experimenter has for many years made a study of saliva, and the conclusions arrived at are not different from those determined by his other investigations.

THE DAUGHTER IN THE FAMILY.

BY JENNIE CHANDLER.

I had some time ago the pleasure of listening to a lecture by Mr. M. M. Mangasarian, entitled, "The Daughter in the Family," which was so full of good things that I wish to mention some of them. He began by speaking eloquently on the value of children as a source of happiness to their parents. He said that they were simply the greatest blessing in the world. They supplied an outlet for the affections. One of the purest joys known on earth was that which a parent derived from their children when healthy, strong and noble. It is true children may be a curse, but no well-born child of either sex was ever entitled to that name. Notwithstanding the old adage about "a rich man for luck and a poor man for children," he maintained that the poor man who dwelt in a cabin, but was blessed with a lot of sweet children, was more to be envied than the childless millionaire whose riches could purchase for him every material luxury that this world afforded.

Then he reviewed the position of the daughter in the family, showing that from the dawn of history down to comparatively modern times, it has been anything but an enviable one. The laws of inheritance have been made to bear very heavily against her. She has been discriminated against in favor of her brothers. Their entrance into this world is always welcomed, but she has been too often received with frowns and manifestations of grief and disappointment. This is more especially true, however, among Eastern people than among Western nations. In the past in some countries laws have been framed which justified a man in divorcing a wife whose offspring were all girls.

Although in modern times many legal discriminations against the daughter have been abolished, it is still a fact that the advent of a boy into the family usually causes more rejoicing than the entrance of a girl. In the estimation of most parents boys are more desirable than girls. This is because the delight which a father takes in his children is largely prospective, while the boy's future is circumscribed by no horizon, for he may aspire to anything. For the girl, in the vast majority of cases, there is no "career" possible, and the solution of the problem of life for her in the vast majority of cases means simply marriage, which is full of uncertainties.

The growth of more humane sentiments and the widening of woman's sphere of possible activities, has resulted in greatly improving her position in the family, and the same causes will continue to operate in her favor in the future.

Mr. Mangasarian concluded by expressing the opinion that parents ought to be just as glad when their children were girls as when they were boys, and drew a delightful picture of the influence for good which a sweet and pure girl might exercise in a home. This latter career, though not so full of glory perhaps as that of a career of conquest, must receive a higher reward in heaven.

TOPICS OF THE MONTH.

DANGER IN CYCLING.—The modern bicycle has no doubt come to stay, and so we must do all we can to make it useful and prevent its doing harm. That it often injures the health is true. This happens in more than one way: First, frequent accidents result from its use, even when the rider is not specially careless. We have come in contact this very season with several serious ones, in which persons were laid up for weeks and had surgeon's fees to pay. Accidents from cycling are far too common. It does not help the matter to say that this is true of all methods of exercise and recreation. Second, the attitude assumed by most riders is absolutely bad and only to be condemned. The curving forward of the body cramps the respiratory organs, diminishes

respiration, and gives an awkward appearance, anything but desirable or manly. The position often assumed of the head and face is also a very awkward one. The occupations of most of us tend to flatten the chest, and we ought to have some methods of counteracting it. Certainly this sloping position, so common, is not a necessity, but a habit which might be avoided. Third, cycling does not equally exercise the muscles of the body, but a few of them excessively, and for this reason should be supplemented by walking, running, and other exercises of a more general nature.

The psychical effects of cycling are excellent, and the pleasure given to those engaged in it are its chief merits.

DISINFECTION.—Professor Koning, of Göttingen, has successfully tested the following means of destroying the infection of contagion no matter what its nature may be. The drawback to its use is the poisonous nature of the disinfectant, viz., corrosive sublimate, which, from its superiority to all others, might be termed the king of disinfectants. Its nature prohibits it being used by any but skilled hands, or by those who perfectly understand its character. The method is simple. From one and a half to two ounces of corrosive sublimate are put on a plate over a chafing-dish, and the windows and doors closed. At the expiration of four hours the windows are opened, and the apartments well aired. The person entering the room holds a damp sponge over the mouth and nostrils so as not to inhale the vapour. The next day the windows are again closed, and some sulphur is burned in order to neutralize any mercurial fumes which may linger in the furniture or walls. The room is again aired and cleaned, and is now ready for occupation. This treatment effectually destroys bugs, fleas, and all kinds of insects, and the professor states that since adopting it, he has never known a second case of a contagious disease which could be attributed to infection remaining in the room. After scarlet fever, measles, erysipelas, or pyæmia, the results were a complete success.

A SEA TRIP FOR HEALTH.—The English are fond of the sea, and believe in its virtues as a means of health. They say that when overwork has exhausted the system, a trip to sea is a remedy of the highest value. There is perpetual carriage exercise and rest

without exhaustion. The even temperature over the water prevents a chill. The air is always pure, the germs of disease never being found to any extent over the ocean. A long voyage is preferable to a short one. Good company is desirable. Those subject to rheumatism are not benefitted, indeed it is those who suffer from over-brain work who get the most good, and it is to middle-aged man more than all others that a holiday at sea is recommended. In the great majority of cases a man who leads an active business or professional life selects his form of holiday as much for what he gets away from as for what he gets to. The desire to get out of harness and to escape from the weary treadmill of the recurring cares, from which few active men are free, is never better met than by a voyage. Fresh air and the incidents that vary the monotony of sea life are sufficient to give the benefits that any change can give, while the gentle exercise of walking the deck stimulates the appetite and promotes digestion.

DEATH OF MISS CONSTANCE NADEN.—Miss Constance Naden was a senior wrangler at Oxford. A wrangler is one who attains high honors in the mathematical examinations for the degree of B. A. Her thesis was on induction and deduction, and showed a high development of mental powers. Herbert Spencer could not but remark on this essay that “in her case, as in other cases, the mental powers so highly developed in a woman are in some measure abnormal, and involve a physiological cost which her feminine organization will not bear without injury more or less profound.” This, however, does not prevent his paying a high tribute to Miss Naden's intellect and character. “Very generally,” he says, “receptivity and originality are not associated ; but in her mind they appear to have been equally great. I can think of no woman, save George Eliot, in whom there has been this union of high philosophical capacity with extensive acquisition. Unquestionably her subtle intelligence would have done much in furtherance of national thought, and her death has entailed a serious loss.” It would be interesting to know if her death was the result of her devotion to brain labor, and whether as wife and mother she might not have lived longer. It is certainly a question worth considering.

THE PERFECT MAN.—Dr. Stanley Hall, President of Clarke University, give the HERALD her ideas of what constitutes a perfect man as follows: "1. Health is chief. Health is absolutely of prime importance—not physical culture merely, but right eating, drinking, bathing, breathing, exercising, sleeping. In Germany they have thrown out the classics to make room for hygiene. This was done long ago in Sweden. Dyspepsia, bad teeth, nervousness and the seeds of phthisis are poor foundation for a perfect man. 2. One must have a specialty—a field however small, of which he is master—be it a craft, an art, or a science. 3. He must have religion. This enables him to renounce the thousand things he cannot have, it shuts the many open questions he cannot solve. The Oriental has everything and wants nothing. The man of the West thinks he has nothing and wants everything. The man between the two is best."

TEMPERANCE.—Dr. J. Mortimer Granville, who has written very good books on hygienic subjects, seems to be far off the track on total abstinence. Think of such words as these from such a source: "Abstinence all the world over, and in all ages, has taken and still takes the backbone out of a man and leaves him a limp, invertebrate animal with a pulpy brain, a feeble intelligence and a will which lacks the power to assert its authority over the instincts and propensities it was made to control." If the word intemperance was put in the place of the word abstinence the sentence would have expressed a profound truth. Perhaps he intended it to be so understood for in another paragraph, he says: "Drunkenness suspends the action of the will, and if often repeated, it destroys the power it has too frequently enslaved. The weak-minded and short-sighted practice of 'tippling' and 'treating' with 'drinks' at odd intervals throughout the day, with no better excuse than 'having a thirst' or 'feeling low,' is one of the silliest and most irrational to which any sane man can well addict himself. Cannot a man be friendly in business or in social intercourse without helping the object of his friendliness to get drunk." One thing is certain, Dr. Granville has stirred up the temperance people of England thoroughly on the subject and they are making it rather hot for him just now.

LITERARY NOTICES.

EATING FOR STRENGTH.—Or Food and Work. By M. L. Holbrook, M. D. New York: M. L. Holbrook & Co. Price \$1.00.

The *Gospel Banner* thus speaks of our book on Food and Work: "An important subject is here clearly unfolded and forcibly advocated. The thinking portion of the community is giving due attention to the influence of diet upon the brain, as well as upon the health of the body as a whole, and thence upon the work and life of the individual. Dr. Holbrook shows the uses of food, the constituents of the various kinds of food, the functions of the several organs of the body, and how to insure to each person the diet best adapted to promote health and to keep the system in the highest condition for effective service. The place of fruits and their comparative values is fully discussed, a leading place being given the apple and the grape. The relations of food to intemperance is an important chapter. How to prepare food for the young, the aged and the sick is fully described. Several hundred recipes are given for making every possible kind of dish for those in health and those who are sick. The many ways of providing palatable and harmless drinks is an excellent section. Altogether, we know of no volume in its class to put before it. It will be of the greatest value to every family that follows its sensible teachings. Its price is exceedingly low."

FOR SALE.—Dr. F. W. Hurd, of Experiment Mills, Pa., whose Health Institution we noticed as for sale in a recent number, has received a large number of letters from persons relating to it, but has not yet found a partner, or purchaser, and is still desirous of one. We know this institution so well that we can conscientiously commend it to any one desiring to engage in such business. The Institution has been established about twenty years, has had a large business and is capable of still further development. Now is a good time to look into the matter.

BUSINESS NOTICES.

FOR SALE.—The good will, fixtures, business and business letters for ten years, very valuable, of Our Healthful Home, a first class Sanitarium. Address,

MRS. C. C. SMITH,

Box 535, Reading, Pa.

A MODEL LETTER.

DR. M. L. HOLBROOK,

Dear Sir: Herewith is a check for two dollars for the HERALD OF HEALTH. I suppose I am a year in arrears, as I neglected to send it last year. I have been a subscriber to the HERALD OF HEALTH many years. I have read it with interest every month and have taken many hints from it in the management of my family. I have a large one and never had any sickness to speak of. I believe the health of my children is in a large measure due to their management, in food, clothing, ventilation, etc. Some of the articles in the HERALD OF HEALTH have given me points that I have put in practice. I would not be without it for ten times its cost.

HUGH KING,

of New York City.

THE HERALD OF HEALTH.

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HERALD OF HEALTH.

Forty-first Year.

DECEMBER, 1891.

No. 12.

THE ABUSE OF EXERCISE.

BY ALTON W. LEIGHTON, M.D., NEW HAVEN.

Three months ago a youth of seventeen, of bright prospects and abundant health, was urged into a trial of strength. The test didn't last long—the feat was simply to raise a dumbbell arm's length above the head. To be sure the weight was heavy, but the onlookers were a jolly lot and it really seemed a shame for any would-be plucky, manly fellow to refuse to do his best.

Immediately after his second effort the youth felt pain in the back of his neck. For several days the pain lasted, and when called in, I discovered that what had seemed to be general weakness had already advanced to marked paralysis. Now, what had happened?

The nature and scientific treatment of such spinal affection is still obscure. Many eminent physicians deny that primary hemorrhage of the spinal cord can occur in such an injury. This case, however, has prepared me to view such a mishap as extremely probable.

Whatever the merits of the learned dispute, which now adorns reams of recent medical literature, the appropriate treatment everywhere modestly retires into a very meagre space, and the humiliating fact is that, in severe cases, the combined wisdom of our profession offers, at best, but little positive assistance. Such patients often remain paralyzed below the neck, unable to move—unable to empty the bladder or rectum, all but devoid of tac-

tile sensibility; helpless, pitiable objects, until huge bedsores wear them out, or urinary disease ends the consciousness that has remained keenly alive throughout.

My patient can sit up and make a few useless motions, and the bladder and rectum now act perfectly, but in spite of all that can be done the outcome is uncertain. At best he will lead hereafter but a maimed life, for meanwhile, in spite of massage and electrical exercise, the muscles wither. Such a sketch of a less well-known result of violent exercise I add to the common accidents with which all are familiar simply to fix attention on the need of reasonable caution.

In many who have derived only unmixed benefit from muscular and nervous training, caution often excites impatience, and certainly the benefit of athletics is so sorely needed everywhere that cheer might seem more to the point than caution. It will indeed be a pity if exercise shall become a fad so overdone as to invite a radical reaction.

In spite of the impetus given to popular sports in recent years, the physical gain is by no means shared fairly by the public in general. The vast majority, especially of brain workers, are still too obviously content to read the baseball column or perchance to attend, or bet on the boat race or tennis match. The good idea is so evidently just beginning to diffuse that I dislike to pose as a croaker or to lead any to neglect needed exercise through timidity. But the too enthusiastic devotee forces the whole subject into disrepute. In many places where athletics had gotten a footing, especially where the girls had boomed tennis, had, perhaps, affected the long walks of their more favorably situated English cousins, or, perchance, had tested the vaunted restfulness of the graceful Delsarte drill, a noticeable reaction has set in.

The loading of the blood with the poisonous products of undue muscular combustion, the nervous drain, the strains and pelvic injuries that result from recklessness and misinformation are factors in this reaction.

True, there are ever more and more novices to replace the deserters, but unless its influence operate continuously and safely, recommending itself to the judgment of parents and of their medi-

cal adviser, any seeming popularity of physical culture may prove illusory.

When a football team is losing ground one often hears the low, eager chiding of the captain. Reasonable force, augmented by strategy and alertness, does not sum up the philosophy of the day. To "smash 'em" comes nearer to the idea. The biggest are urged to hurl their simple brute weight on top of the crowd of smaller opponents, and by various exaggerated and brutal efforts to offset the effectiveness of possibly cooler and more skillful play on the lighter side.

The escapes are marvelous, for at any moment the combined forces of several may be concentrated on a single man or on a single limb. A violent dislocation is no transitory matter. Simple fractures often leave lifelong results. When the ribs are violently crushed the splintered ends can barely escape pricking the delicate plura, if not the lung itself. With this abuse the public is getting more or less familiar.

Nervous exhaustion from excessive tennis, or Delsarte, or walking, however, is not so readily perceived. In fact, it is often mistaken for the normal healthful fatigue that should follow sufficient exercise. After too free indulgence many throw themselves on couches to pass quickly into the deep sleep that is clearly the sleep of exhaustion, from which they awaken, not refreshed, but even more tired than before. Such exhaustion may be more or less continuous for days or months.

Here the judgment is usually at fault rather than the enthusiasm. If it becomes necessary to abolish competition and enthusiasm and to take exercise as medicine in stale, humdrum doses, then we may see the decline of popular physical culture.

No, we must continue to encourage athletics for the love of sport—for the simple joyous diversion from the routine and dead-level of everyday life. Nay, chiefly for this mental rather than for the physical renovation, and for one, I should put confidence in better education on this point in the controlling influence of genuine intelligence and science, even in the very midst of play.

NOTES CONCERNING HEALTH.

No. 5.

BY THE EDITOR.

DR. SEAVER of Yale College gymnasium has given some interesting figures concerning tobacco and physical health, the result of a comparative study which he has made on the users and non-users of this weed in the present senior class for the past four years. From his measurements we get the following:

Average increase in	Users Of Tobacco.	Non-Users of Tobacco.
Lung capacity, liters..... (Or an increase 66 per cent. greater for non-users.)	.15	.25
Inflated chest, meters..... (Or an increase 19 per cent. greater for non-users.)	.0304	.0364
Height, meters..... (Or an increase 20 per cent. greater for non-users.)	.0169	.0202
Weight, kilograms..... (Or an increase 25 per cent. greater for non-users.)	.4	.5

With regard to the possible effect on scholarships these statistics were given:

Of those who received junior appointments above dissertations, 95 per cent. have not used tobacco; of those above colloquies, 87½ per cent. have not used tobacco; of all who received appointments, 84.3 per cent. have not used tobacco; of the entire class, 70 per cent. have not used tobacco.

These figures show similar results to those obtained in several polytechnic institutions in France, and published in this Journal nearly twenty years ago. It is often asked why the use of tobacco produces such results. Probably one reason is its effect on the mind, causing a feeling of satisfaction with the present condition of things. This satisfaction puts an end to great effort for improvement.

CHILDREN OF BRITISH NOBILITY.—The children of the British nobility are more strictly managed than is generally supposed. Their

daily regime is about as follows: They rise at 7 o'clock the year round. They have a short walk before breakfast, which is served in the nursery at 8, and consists of oatmeal and cream, a little baked or mashed potato, perhaps a bit of cold lamb, milk, and fruit. Then they must assiduously study until 10. Then comes the walk in the grounds or a drive in a double phaeton, the governess in charge and the under coachman or stable boy as driver. On their return they are allowed to romp until dinner. At this meal they are served with soup, a trifle of fish, sparingly of roast meat or grilled chops, a small "help" of vegetables, and some fruit, or, instead, custard or rice pudding. The younger ones may nap, and the older ones play, until 3 o'clock. Then comes study until 4. A half hour's drive or walk is had, when they are entertained by the governess with stories improvised, or read, with music, or by games, until 6 o'clock. Then the supper, when weak chocolate, cocoa, or tea, with crackers or toast, and perhaps a trifle of cold roast is served. By half past 7 every one of these lordlings is in bed and sound asleep, at least so says Mr. E. L. Wakeman, who has had extensive opportunities to study this subject. We may, however, take it for granted that they do not all fall to sleep the moment they touch the bed.

IS DRUNKENNESS A DISEASE.—The leading physicians of Saxony at a convention recently held, made a report scouting the idea that drunkenness is the result of dipsomania or disease. They declare that men get drunk not because they are crazy, not because they are diseased, but because they will. They love the indulgence, and will not restrain their appetite though they might do so if they made the effort. On this report the authorities have taken action, and declare that drunkenness is a crime voluntarily committed to be punished like other crimes. To this the wise editor of the *Journal of Commerce* adds: "Here is a lesson for reformers. Let this be the motto emblazoned on their banners, 'Drunkenness is not a disease, but a crime.' The drunkard may be dealt with by moral suasion and urged to the necessary restraint. When this fails, let him be treated as a transgressor of the law, and punished like other criminals. All appetites unrestrained run to excess, and the restraining power is in the will. Men get drunk

not because they are diseased, but because they will not restrain their craving. We often hear it said that the inebriate must drink and cannot help it. He drinks not because he must, but because he will; he is a voluntary offender against the law of sobriety and should be dealt with accordingly." There is much truth in this, as applied to some drunkards, but not to all. There are many who cannot restrain themselves, because the power of inhibition has been destroyed. Possibly punishment would rouse it again in many, but others would die under it. It requires great wisdom to separate and classify these cases, and apply the correct remedy to each.

SPREAD OF CONSUMPTION.—Dr. Flick said at a Public Health Association: "From a careful topographical study of the disease in the fifth ward of the city of Philadelphia, extending over a period of twenty-five years, I am convinced that fully one-half of the cases of tuberculosis among the poor people have their origin directly or indirectly in infected houses. A family unsuspectingly moves into a house which has just been vacated by a family in which a death has occurred from tuberculosis. In the course of time the weakest member of this family succumbs to the disease, and a new series of victims is started." The suggestion which the doctor makes concerning the condition of things is that "whenever a case of tuberculosis is removed from a house, or the patient dies, the State should at once, before the house can be occupied by another, thoroughly disinfect every part of it, scrape and replaster the room which was occupied by the patient, and take precautions that none of the clothing or furniture which had been used by the patient be given away or left for the use of others, without first having been thoroughly disinfected. A house thus cleansed should be so recorded in the office of the [health] department, so that any one wishing to move into it, may be able first to assure himself that he runs no risk." Concerning this, the *New York Times* remarks: "It is estimated that 100,000 persons die of tuberculosis every year in this country, and each case involves suffering and disability and loss of earning power for a long time. From an economic point of view, the annual loss is enormous. We believe the prediction may safely be made, that some of the meas-

ures which are now recommended by Dr. FLICK for the prevention of tuberculous infection will be used by health authorities in all the cities of this country twenty or thirty years hence, and that the number of cases of consumption will by it be greatly decreased. Until municipal and State authorities shall be led by public opinion to take these precautions, many intelligent persons will be induced by the researches and publications of experts to protect themselves so far as possible, and they will soon begin to inquire as to the sanitary history of the houses of which they are not the first occupants or in which they are invited to live. Unfortunately there are a great many migratory persons in our cities by whom such inquiries cannot easily be made."

A VEGETARIAN ATHLETE.—Our friend, Mr. William Lawson, an English vegetarian, about sixty years old, sends a copy of the *Carlyle Patriot*, giving an account of some athletic games in Carlyle, among others, a two-mile foot race in which eleven persons took part. Mr. Lawson came in second and greatly astonished the bystanders by his fine running. Mr. Lawson many years ago made a record by climbing Mount Blanc with another Englishman on a wager. He went as a vegetarian and total abstainer, while his opponent was a flesh-eater and used alcohol moderately as was the custom with mountain climbers. Mr. Lawson reached the top, the other gentleman giving out on the way. Such tests of endurance have much value and we are always glad to have our friends send them to us.

PALPITATION OF THE HEART.—Many years ago we were called to treat a case of palpitation of the heart which had continued many days. It was quickly cured by wetting a towel in cold water and laying it over the afflicted organ. Since then we have always recommended this simple remedy with excellent results. We now find the same method endorsed by a noted French physician. Dr. Gingeot recommends as a valuable remedy for palpitation—one that has proved serviceable to him—the application of cold over the heart. The simplest plan of all is to apply a wet sponge in the morning before dressing. At night, when in bed, the patient or an assistant may put a cold compress over the heart, well covered with dry bandages, to retain moisture and prevent

any wetting of the clothing. When this compress is warm, the patient may remove it, and will probably fall asleep. There are objections to the ice-bag, one being the condensation of insensible perspiration upon the surface of the skin. Palpitation of nervous origin seldom fails to be greatly benefitted by the application of cold; and a certain success often follows its use in cases of palpitation due to organic disease. Equalizing the heart's action will often prevent an increase in its size. It is also useful in aneurysm and passive dilatation.

COMPANY AT THE TABLE.—Epicurus recommended to his disciples to be more careful in the choice of table companions than of food, a prescription which will always be less observed than it deserves to be. Pleasant company at table has certainly a beneficial and stimulating action upon appetite and digestion, but it will not remedy the defective quality of the food. We may pay attention properly to both the company and the food. We know of persons who are very unhappy if they are obliged to eat alone. Their appetites fail and their digestive powers weaken. Let us then so far as possible have good companions at the table, or let us make them good by our own agreeableness and power to please.

AMOUNT OF SLEEP REQUIRED.—Dr. Cold, a German specialist, gives us his opinions concerning the amount of sleep required at different periods of life as follows: "A new-born child finds its want of sleep completely satisfied; when in good health it sleeps almost during the whole of the first weeks of its life, and it wakes up only for the purpose of nursing. In the first years people are very much disposed to let children sleep as much as they like, the time being that of tranquility for the parents. But from six or seven years, which is the time for going to school, things are reversed. When ten or twelve years old, the child has no more than eight or nine hours' sleep while it needs at least ten to eleven hours, and the more the child progresses in age the more its resting time is curtailed. The author is convinced that an adolescent up to twenty years of age requires nine hours of sleep and that even an adult still needs eight or nine hours. If the time devoted to sleep is insufficient, the brain has not a sufficient repose, ceases to perform its functions in a normal way. Exhaustion, excitability, intel-

lectual troubles take gradually the place of the love of work, of general ease and of the spirit of initiative."

WHICH IS WORST, BEER OR WINE?—The question, which shortens life most, beer or wine, has come up before some investigators in Munich, where abundance of material for study is to be found in the men and women who keep beer and wine places, they being the heaviest consumers. The average lifetime of persons who pass the twentieth year in good health is fifty-three years. The average lifetime for proprietors of beer saloons is 51.35; proprietresses of beer saloons, 51.95; brewers, 42.33. In the same city inquiry has shown that the male proprietors of wine-rooms live but forty-nine years, and women who keep wine-rooms but forty-seven. So it appears the wine consumers have the shorter lives, probably because wine contains more alcohol than beer.

CLIMATE AND CONSUMPTION.—Climate as a remedy for consumption has long had its advocates and always will have, but at a recent convention of climatologists, including physicians from many of the most renowned health-resorts, they were nearly unanimous in ascribing little virtue to the climate of such resorts, and, still more curiously, there was a diversity of opinion as to what qualities of climate would be favorable to invalids, provided they could be secured with certainty. Dr. Labat considered that the real secret of the good effect of a change of air consisted in "the choice of the house where the patient lived," and "the hours and the place where he took exercise." Dr. Chiais, of Mentone, supported this theory, and believed that if delicate persons would be more careful about their habitations, and the way in which they spend their time, many lives might be saved. No doubt this is true. We make a climate for ourselves in our houses and their surroundings and can in a sunny room, in a house properly situated and kept perfectly sanitary, make the weather almost as good as the best in the world. Of course, the soil must be dry, the cellar clean, the walls free from poisonous matters, the floor a sanitary one, the heating and ventilation perfect and the region non-malarious. The vicinity of forests also is desirable.

HOW TYPHOID FEVER IS SPREAD.—The Michigan Board of Health, some years ago, through their intelligent secretary, reported the

occurrence of an epidemic of typhoid fever which, upon investigation, was found to have originated in the pollution of a small river near its source. A person residing on the bank of this stream was attacked with the fever; the vessels containing his excreta were emptied in the back yard on a snow bank; the snow melted, and the matter was carried into the stream. The fever made its appearance at several towns in succession, and the disease prevailed as a fatal epidemic. Doubtless, the family knew no better, but had there been a penalty, or had the family physician been a sanitarian, this epidemic would not have occurred. So with many things. We need sanitary laws, and none but those who have the requisite knowledge can make them. More than all we need enlightenment of the people everywhere on hygienic subjects. The relation of water and its pollution to the spread of typhoid fever is so simple that a child can understand it: and it might very properly be made the subject of instruction for the young. The way that hygiene is taught in our schools at present is very defective. Youth learns much that has no relation whatever to the preservation of the health, and are not taught the simplest problems of this important subject.

PURIFYING WATER BY BOILING.—Among the procedures for purifying water, boiling is the most certain and simple, and within the reach of all. The best manner of procedure is, after boiling it a few moments, to place it in bottles or jars and letting it stand in a cool place, or a clean refrigerator, whose air will not again pollute it, or it may be taken hot by those who are at all feeble or infirm.

EXTINCTION OF THE INDIANS.—The following, by an Indian chief, has a lesson for us all. He says: "Our people were accustomed to a diet of fish, game and herbs, with plenty of exercise, and the change to our present diet has been detrimental to the health of our young men. The majority are now attacked with pulmonary consumption, and the race is gradually dying out. I believe that if schools were established in our country, where physiological and sanitary laws could be taught, an improvement in the physical condition of the Indians would be the result. The young men have attended the Chemawa School, but the change from the

mountainous to the lowland has been fatal to them. We want schools in our own territory, and both the loyalty and the health of the Indians would be increased. It is sad to look upon the apparently healthy men standing around me, and then to think of my people declining in health and strength and dying prematurely. I account for this by the fact that these men are educated, and their knowledge of physiological laws enables them to prolong life, while illness of our people means death. The Indians who chose agricultural pursuits as a mode of living are doing well and will improve when they understand it thoroughly. I am a farmer, as is the majority of my tribe. The farmers' physical condition is very good."—*Lot, Chief of Lower Spokanes.*

PHYSICAL CULTURE AT AMHERST.—Amherst College has completed its thirtieth year of physical culture under the charge of Dr. Hitchcock, who instituted the system in 1861. The classes have thirty minutes' drill in marching and the use of dumb-bells four days in the week, and interest is stimulated not only by an accompaniment of lively music, but also by an annual prize to the class doing the best work. Careful records have been kept from the first, and they show that the regular exercise produces a perceptible improvement in health, the percentage of sickness among the seniors during the last twenty-five years having been almost one-fourth less than among the freshmen. Another interesting thing brought out by these statistics is the fact that students as a class are more vigorous young men now than then. From 1861 to 1865 each student lost an average of 2.18 days during the college year from sickness, while, from 1885 to 1889 the average was only 1.75 days—one-fifth less. The deaths during the period from 1861 to 1870, exclusive of casualties to those who went to the war, were 6.1 per cent. of the whole number graduating, while the deaths during the corresponding period from 1881 to 1890 inclusive were only 3.4 per cent. of the whole number. Dr. Hitchcock is a pioneer in the cause of physical culture, beginning his work at the time Dr. Dio Lewis so agitated the public mind on this subject. Other institutions have followed in the work till now no good college is entirely without some means, if not the best, for systematic physical as well as mental culture.

JAY GOULD'S HYPNOTIC.—Jay Gould, like other mortals, sometimes finds it difficult to sleep. He says: "I find, in such a condition, that the only thing that I can depend upon as a suitable drink is warm milk. When I have had a particularly busy day and have been under an unusual strain, I find that I don't sleep very well; so when I retire I have a small spirit lamp by my bedside and a pint or two of good, fresh milk in a pan. If I become wakeful and restless I light the lamp, warm the milk, drink a little of it and immediately fall asleep." This is certainly far better than the practice of so many New York business men, who, when they fail to sleep, resort to sulfonal and other dangerous drugs that reduce the heart's action and also the action of the nervous system, that sleep may come.

HYGIENE TREATMENT OF CONSUMPTION.—Dr. Briand, of France, thinks he has discovered a new way of treating consumption, which is described as follows: "Slowly accustoming the patient to the action of the air, Dr. Briand first opens the window, then moves the bed on which the subject is lying every day a little nearer to it. The last stage of the cure consists in sleeping in the open air regardless of wind, rain or snow. It is said that the four patients who submitted to this treatment last winter have gone home to their families rejoicing, every consumptive feeling having disappeared." There is nothing new in this, for practically the same method has been in use by hygiene physicians and others for a long time, some patients we know actually sleeping out of doors in a well protected veranda during several months of the year with great advantage. Managed cautiously it is rational and may be useful, but why call it a new French discovery?

EATING FLESH TOO OFTEN.—The *London Lancet*, now and then has a good word on hygiene. A recent number calls attention to the subject of food, saying that the time of eating is a matter of no small consequence. This is to some extent subject to individual convenience, but we may take it that as a general rule not less than five hours should separate one meal from another. The short interval of rest usual after meals will commend itself as being in strict accordance with physiological necessity. The quantity and quality of food taken also require careful attention, and these

again must be regulated by reference to the work to be done by a given person. Some difference of opinion has always existed as to the proper daily allowance of meat. We shall probably do justice to the digestive powers of most persons, however, by advising that only one meat meal be taken daily. More than this would tend, if continued, to overload the tissues with digestive products, and less would hardly suffice for full nutrition. Most persons take meat at nearly every meal and it would be a blessing to establish a custom of taking it but once a day.

THE INFLUENCE OF PARENTAL AGE ON THE VIGOR OF CHILDREN.—Dr. Körösi, of Hungary, has investigated the influence of the age of parents on the vigor of their children at the Congress of Hygiene. The basis of his paper was furnished by data upon the age of parents who have lost children below the age of 10, which data have been noted in this city for many years. Observations were made on the deaths of 29,813 children. His investigations led him to the conclusions that girls should not marry before the age of 20; that old men ought not to marry young women; women under 30, and even between 30 and 35 years of age, need not fear to marry a husband of above 30, but these same women, and even those between 30 and 35, should avoid marriage with young men, as it seems probable that their children will be more exposed to inborn debility. The most vigorous children issued from fathers of 30 to 40 years of age, the children of younger and older fathers dying somewhat oftener. When the fathers were advanced in life above 60 years or more, the vitality of the children seemed to increase anew, and this seems inconsistent and should be doubted until proved by further investigation.

LONGEVITY.—GLADSTONE, TENNYSON.

I.

We are often told that nowadays we are a puny people. We have degenerated, say the pessimists, and are of a poorer build than our forefathers, who were equal to the rough tossings and

tumblings and exposures of their times, and enjoyed them; and it is true that modern artificiality and luxury do injury to the physique, and shorten life. But it is sometimes forgotten that in the rougher and primitive times it was only the very strong that survived childhood. The weakly were killed off—the strong-built and sound-chested remained. In a parish in the northeastern part of England, which we know well—where in autumn and winter the visitation of north and northeast winds is something to remember—this is clearly so. Those who reach manhood attain a very old age; but the children die off at certain times in groups, and the churchyard is full of children's graves—little mounds in many cases all in rows, with their small headstones or other markings to the eye. Nowadays, as then, we have instances in clusters of great vitality, carried up almost to a hundred—indeed, what with science and medical knowledge, we are not sure but the chances for long life may be increased, if the conditions are such as to favor comparative ease of mind and a good deal of quiet change.

What most plays havoc with us is the fiery competition and pressure of city life, where much relief or change is not taken. In such circumstances a hobby of some sort, an outdoor hobby particularly, is of the greatest benefit, as gardening, or the study of some phase of natural history; but, at the same time, even here it is needful to guard against too great a devotion to it which would in any way allow it to be transformed into a keen competition with others. In such books as that of the late versatile and humorous Mortimer Collins on "A Long Life," this point is much dwelt on, as well as the true method of ruling one's self at table. In truth, the very mood of easy facetiousness and cultivated hopefulness which Mr. Collins' book in every way favors and commends is, in our idea, a grand element in the recipe for lengthening life. Lord Tennyson, in "Maud," makes the hero say:

"For not to desire or admire, if a man could learn it, were more
Than to walk all day, like the Sultan of old, in a garden of spice."

This is not only a fine means of elevating the character, but it may also contribute to lengthen life. It is undoubted that the indulgence of some of the passions is inimical to long life. Jeal-

ousy, anger, ambition, and love in its more passionate forms—which, ungratified, will pass into a madness of longing—are destructive. The unrelieved longing after the departed Mademoiselle de Bonnemain to which General Boulanger surrendered himself, could not but have greatly shortened his life, even if he had had the moral strength or force of character to resist suicide. All these passions, too largely entertained, and allowed to oust reason, are certain to impede the genial courses of the blood, to induce the restlessness that issues too often in “insomnia”—that most disastrous of all scourges in our artificial time. Many diseases, often almost innocuous in themselves, are serious when viewed as almost certain at particular stages to lead to this. Eczema, some forms of gout, rheumatism, and a host of others, are of this class.

GLADSTONE AND HIS ENERGY.

We have been led to these remarks by some recent evidences that life, and energetic life, is still possible at a very advanced age in a very trying climate, and amid conditions or with preoccupations not in themselves usually regarded as favorable to longevity. Mr. Gladstone is now in his eighty-second year, and has reached a time when most busy politicians, if they survive the long-continued ordeal of long nights and hot atmospheres in the House of Commons, with all their excitements and subsequent reactions, have passed into a comatose condition. But he is entering on a grand campaign as energetically as if he were a man of five-and-thirty. He finishes an elaborate article—the result of a lifetime of study—on “Ancient Beliefs in Immortality,” and then goes off to recruit his health in Scotland, proceeds to Glenalmond, and gives addresses like a profound professor; then on to Newcastle to the Liberal Federation meeting, and speaks vigorously; and not only that, with all the “go” and hope and broadening prospect of a greater work to be done than any yet accomplished. It looks almost Homeric—the old mentor coming forth from his tent to strengthen the young men and see them gird on their armor.

TENNYSON AND HIS BROTHER.

Then there is the case of Mr. Gladstone's old school-fellow at

Eton, Mr. Frederick Tennyson—the elder brother of Lord Tennyson—who now lives in Jersey a quiet, patriarchal kind of life in his eighty-fifth year. But he has all his senses in full use—can still move about with comparative comfort, and can pen a sweet little song or indite a biting epigram, and writes the most delightful letters to the few friends who are left to him. Only the other day the second volume of a big poetical scheme appeared from his hand, titled “Daphne and Other Poems,” the continuation of the plan announced in a volume published last year, titled “The Isles of Greece.” If these volumes have any distinguishing mark it is certainly rather that of youth than of age; in flow of music, in fine fancy and phantasy, half dreamy and half mystical, now light and airy, now catching at some of the deepest problems of human life and turning on them the full light of later Christian revelation. All this, and yet if there is a man who has made good his claim to be the laureate of old age, it is Mr. Tennyson, who, alike in “The Isles of Greece” volume, in the section headed “The Return,” and in “Æson,” in the “Daphne” volume, has written of old age as hardly another poet has done, not even excepting the Laureate himself. How fine these lines are!—

Ah! sad Old Age, that, like the stem, survives
 Leaf, flower and fruit; Old Age, that not alone
 Quenches the soul's bright signals in the eye,
 Pulls down the heart's warm banners in the cheek;
 But, in the heart itself and in the soul,
 Leaves only memories that, like winter winds,
 Howl thro' the roofless halls and desolate courts
 Of sometime temples; memories, wither'd leaves
 Of summer roses; pale discrowned kings,
 Thin-voiced ghosts. Yet will I not lament.

But in the very act of writing like this does not Mr. Tennyson disprove his own description, or, at all events, present an exception to it?

And then the Laureate himself! From what Mr. Theodore Watts has just told us in the *Athenæum*, the grand old poet, now in his eighty-third year, is as active, hopeful and productive as ever. A new volume of poems—epic, idyllic, lyrical, character, dialect—is just forthcoming, all the product of the last year. And over

and above that the Laureate, in his great age, has just completed a new play—a pastoral play, suffused with the very spirit of the woods :

The spirit of the woods that, waiting there,
Can wed the mystery of tears and pain
In human life, with solace soft and fair
Still found in Nature's holy constancy.

MRS. THRING.

The other day a very remarkable woman died at the great age of one hundred and two. This was Mrs. Thring, the mother of Lord Thring—one of the most devoted public servants—and of the late Rev. Edward Thring, of Uppingham School, who did so much for education, and who also wrote some of the finest poems for boys that we ever read. Mrs. Thring remained comparatively hale and hearty till she was almost a hundred, but of recent days must have more or less realized in her experience what Mr. Tennyson has written in the passage above quoted. She lived to see her sons raised to the highest positions of honor in the country's eye, but she lived also to see probably the most gifted of them pass away.

THE SECRET.

Of all these cases of great longevity we have referred to, one thing may be said—each and all have carried into practice the wise warnings of the old sages against excess in anything. They have been temperate, careful, regular livers, and their longevity suffices to demonstrate that, with observance of this rule—that of the happy golden mean—a healthy and active old age may in our time of high pressure and artificiality be not only realized, but enjoyed, and made fruitful of blessings to many others.

CLIMATES FOR CONSUMPTIVES.

This subject has ever been one of great interest, and numerous localities claim preference as having a most suitable climate for those tending to this disease. Dr. Penn, of Paris, thinks he has found the ideal climate in Las Cruces, New Mexico, and no doubt

he will report in its favor to his government, and advise many patients to resort to this region. The editor of the *Arizona Journal-Miner*, of Prescott, who has had a wide experience in that State, tells us that Arizona is possessed of a diversity of climates that one can scarcely fail to find in some section all the advantages that can be found in any single place under the sun. Prescott, for instance, is located at an altitude of about 5,600 feet, or a little over a mile, above the sea level. It is thus a happy mean between the severities of the winter of higher altitudes and the intolerable heat of lower ones. Its summers are particularly delightful, the air being dry and bracing, and the temperature moderate. The town is surrounded on three sides by forests of pine trees which add greatly, not only to its beauty, but to its health-giving influences. While the winters are not severe, as compared with those of the Eastern and Middle States, the temperature falls lower than in many other places, and in some few cases the winter climate might prove to be too severe for some particular cases. In such cases, Phenix, Yuma, Tucson, Florence, Globe and other smaller towns in lower altitudes, offer all advantages possessed by a dry and mild climate. In some cases, where invalids have come here for their health, they have found the boon for which they were in search by spending the summers in Prescott and their winters in one of the above towns. The particular advantage possessed by the Arizona climate is the dryness of the air. As an illustration of this, take the winters of Prescott. With the mercury at zero, no more inconvenience is experienced than with it at twenty degrees above in the Eastern or Middle States. The same is equally true in regard to the intense heat of summer in the lower altitudes. While sunstrokes are common in the East with the mercury at 88 and upwards, such a thing is unknown in Arizona, and men and animals suffer no inconvenience from work with the mercury at over 100.

We cannot know too much on this subject; at the same time invalids must be careful not to leave comfortable homes for the uncertainties of a climate where they may not be able to enjoy a home, but be at the mercy of strangers more desirous of their money than their welfare.

THE PERFECT MAN.

BY JENNIE CHANDLER.

The perfect man and the perfect woman can only be objects of the imagination and not realities. Still most of us like to think of what they might be, and perhaps strive, as far as possible, to become one. The Bible tells us "there is no one perfect, no, not one." There will be some defect somewhere, or in most cases many of them. Dr. Henry Mandsley, the eminent anthropologist of London, has given his opinion as to the perfect man, in which he said some rather sharp and sarcastic things about the strivings of mankind for a sort of perfection which he regards as great imperfection.

"Always must a perfect man," says he, "be, I imagine, an imperfect specimen of the species.

"In physical qualities one might theoretically wish him to be as strong as Hercules, as beautiful as Apollo, as swift as Mercury; but if he possessed any one of these qualities in such admirable perfection he must needs lack the other two. And if he possessed them only in such relative balance as would consist with his being a congruous creature, not a monstrosity, even were he the best-proportioned man, he would be no very remarkable specimen of the perfection of any one of them.

"Similarly in respect to mental qualities—having a profound and meditative, philosophic intellect it is pretty certain that he would be incapacitated or pretty nearly so from great and daring enterprise and action; having the keenest and most subtle poetic or artistic sensibilities, he could not well be a hard and sagacious reasoner and successful worker in the coarse affairs of practical life; and having carried moral sensibilities to an ideal realization (which most persons profess to desire though they take good care to stay in the profession only), he would probably be effeminate if not emasculate, always at the mercy of any scoundrel who de-

sired to take advantage of him, and destitute at any rate of the wholesome fund of animality which is necessary to sound breeding.

“The truth is, I take it, that nature does not care so much for the individual, but is concerned about the species, and that it finds the best way of perfecting them to be by fashioning and using a variety of individuals having respectively special qualities in more or less perfection; so many excellent special organs of the species, so to speak, but of necessity therefore imperfect specimens of its whole qualities.

“Are not people nowadays, with their incontinent compassions, their benevolent aspirations and their socialistic longings, making too much account of the individual? The shrieking self-pity of mankind, is it not becoming a deafening nuisance? When they have pulled down the strong and set up the weak, prolonged the infirmest human life to its utmost tether, distributed wealth and comfort as equally as they can, resolved to no more hurt and destroy animals for their pleasure or profit, abolished war and made men a race of gentle beings of sheep-like peaceableness and of ant-like uniformity in well-doing, will they then have really improved the species?

“For my part I think not. They will have enervated and deteriorated it—brought it probably to a stagnant, unprogressive, China-like state of decadence or retrogression!

“Perhaps that is, after all, the end which nature, in its customary ironical fashion, designs—that civilized societies should go to decay and perish by the practice of their virtues.”

On the whole, we may say that perfection is a relative quality, and that it is well that it is so. To be fairly good all round, to have good health, a good disposition, a love for all that is excellent, and not too much sentimentality, and to be capable of filling a useful place in the world and accomplishing some good work, ought at least to be the aim of every one. And while such a one will feel that he is far from perfect, the world will honor him, and when life is over his memory will be held sacred by those who knew him.

TOPICS OF THE MONTH.

REFORMING NEW YORK.—One of the great schemes of this decade is an effort which is to be inaugurated to reform New York City, so that there shall be at least a million righteous men and women in it. The first thing to be done is to open more parks so the children may have plenty of air and sunshine every day of their lives. Rev. Heber Newton says of this movement: "There is no more pressing need in our city now, than for more parks and playgrounds for children in the crowded quarters. Where the body is dwarfed for lack of fresh air, sunshine and healthful exercise, the educator has no material to work on; the spiritual teacher receives no response to his appeals. It is impossible to build perfect men except on perfect animals. Physical regeneration must precede the development of the spiritual life. After a half-day's romp in a playground a child may profit by an hour in Sunday-school. But Bibles will not take the place of bread, sermons will not be listened to by men and women insufficiently clad, and platitudes will not serve the children instead of play and sunlight. In the Seventh ward there are 75,000 people huddled together without a single breathing spot, with the exception of Rutger's Slip, lately turned into a small park. The death-rate among the children during the summer months is simply astounding. The question of open spaces for the young is not one of sentiment; it is one of life and death. We should have parks surrounding every school-house. If there is no room we can tear down enough tenement-houses to make room and the city can afford to pay for them."

A SCARCITY OF WATER.—New York is threatened, so it is said, with a water famine. We have been consuming, since the new aqueduct was built, about 160,000,000 gallons daily, or several barrels for each man, woman and child. This is twice or three times as much for each person as is supplied to any city in Europe, and yet New York is dirtier than any of them. This great city ought to be the cleanest and finest of any in the world, and when

it is governed on business principles, into which are infused common honesty and justice for all, instead of by political rings, it will be, for its natural advantages are very great.

RAPID TRANSIT.—New York hopes, in a few years, to have rapid transit, and it is probable this will be underground. The sanitary question relating to an underground method is of the greatest importance. "Where the sun never enters, there disease prevails" is a well-known fact. Then, too, the danger of an excessive moisture of the tunnel should be considered, and every means taken to prevent it. Not less than 3000 cubic feet per person, hourly, of fresh air will be necessary to keep the tunnel air pure. Can so much be carried in without producing a hurricane? Let our engineers make the estimate.

LADIES AND TOBACCO.—A writer in the *Post* says that one reason why there is so much smoking in public places where ladies and children, as well as men, congregate, is because of the moral cowardice of the average American. He will allow the filthy nuisance to be perpetrated almost anywhere and at any time without remonstrance, simply because he is afraid of abuse or of ridicule. In this respect he compares very unfavorably with the Englishman. Another cause is the entire want of will among the ladies. If every woman to whom tobacco is a nuisance (and that means ninety-nine out of every hundred) would make her feelings plainly known when necessary, matters would improve amazingly. They are not backward in expressing themselves forcibly in almost all other matters, but when it comes to tobacco they say often they like it, which is rarely true.

A SOUP FOR THE SICK.—Many persons would be glad to know how to make a soup suitable for invalids from vegetables which would have all, and more than all, the good qualities of beef tea, and none of its bad qualities. The Germans have been experimenting on this subject for a long time, and a friend has sent us a receipt which they have found to be good. The soup is obtained from either beans or peas or lentels in the following way, which extracts from them a vegetable albumen of the same value as animal albumen, easily soluble in slightly alkaline water, and of easy digestibleness. A proper quantity of the beans or peas, with

the usual addition of other vegetables, is boiled in water containing some soda (about one-half per cent.) until the legumes fall to pieces. After allowing the decoction to settle, the patient is given the thin, watery broth only, decanting the sediment. It is said to be very similar to flesh-broth in taste. An addition of any condiment which will suit the taste may be made. We wish some of our readers would test it and send the results. We also desire any reader who knows how to make an extra fine vegetable soup to send her method to us.

POISONING BY CHEESE PACKED IN TIN FOIL.—On Sunday evening, November 8, I took, after the usual tea, some cheese which was packed in tin foil, with no paper between. During the night I awoke feeling great pain in my stomach and a dizziness that grew so strong that twice I nearly failed away. I began to perspire quite freely, but feeling cold. This was accompanied by a severe diarrhoea. The taste in my mouth was a metallic one, resembling somewhat that of lye. It so happened that I ate a piece of the cheese which was near the tin foil, and as I had eaten from the same cheese before without experiencing any trouble, I must ascribe it to the poisoning of the outer portion. Wise men are benefitted by the experience of others, fools not; they get only wiser when they experience themselves. I knew that cheese in tin foil might be poisonous. I should not have allowed it on my table, but in this case I was the fool; and now, after having had the experience, I have given the order that no cheese packed in this way should come to my table again.—O. R.

TACTILE SENSIBILITY.—Dr. E. P. Thwing, a graduate of the L. I. College Hospital, Brooklyn, dropped into the surgical clinic the other day and being requested both by the class and Prof. Wight to address the hundred students in the operating theatre, took his text from a remark just made by the operator in performing taxis, "I see with my hands." Eyes cannot be literally put into the ends of our fingers. Nor can softening them by poultices make them see. "But," said Dr. T., "the cultivation of the mind, of the powers of observation and constant practice, will give the fingers wonderful delicacy. The blind have phenomenal powers of touch. The Chinese doctor distinguishes by touch 144 pulses.

The Japanese *masseur* has great tactile sensibility, as well as healing power in his hands. This is more a growth than a gift."

SOFT HANDS.—A philanthropist once asked a young lady, whose father had many workmen in his employ, whom she might benefit, "Have you done anything for your father's hands?" "Why, no," she replied, "but I soak my own in bran every night to keep them soft." A cruel critic once prayed *at* a preacher whom he disliked for his effeminacy, "Make his heart as soft as his head, then will he do us good." Hands are made truly beautiful by beautiful work, and a soft touch comes from a gentle spirit and a well-trained mind.

CONSUMPTION IN ANIMALS.—Prof. Arloing has shown that one out of every six carcasses of beef is tuberculous. If this is true, then certainly one of the evils of beef-eating is the danger of contracting consumption. Prof. Arloing considered the danger of drinking milk from tuberculous cows to be very great, and thought all tuberculous animals dangerous to health. There is danger, however, in seeking for the causes of consumption in flesh and milk, in forgetting the most important cause, too much living in bad air in shops, stores and houses. In our opinion physicians are making a mistake to look at the moon for causes of disease, and forgetting those that exist under their own feet.

ORPHAN ASYLUMS.—The tendency to build orphan asylums in cities ought to be stopped—They ought to be in the country on farms, perhaps near some body of water and where the health conditions are good. As a rule, orphan children are of less robust health, and need the best advantages. These are not to be found in large cities; New York has a large number of costly asylums for children where they are imprisoned and never develop into the best of men and women. On farms or in gardens they would do much better.

THE PERFECT MAN.—Rev. M. T. Savage, of Boston, gives his idea of the perfect man. He will be:

1. A perfect animal.
2. A trained, clear-seeing, unbiassed intellect whose one thirst is for truth.
3. A taste that sees and appreciates all beauty.

4. A heart that loves all lovely things.
5. A sympathetic beneficence that would have all men lifted to the highest.

6. A soul, or spirit, that recognizes kinship with the Eternal Spirit and ever aspires toward a fuller spiritual life.

These all blended in one being, not that he has these things, but is these.

FRUIT CUSTARD.—A very nice and healthful fruit custard is made as follows:—Thoroughly beat three eggs, add a pinch of salt and three tablespoonfuls of sugar. Heat one pint of milk boiling hot in a double boiler, and stir in the egg preparation until it thickens. Pare and thinly slice four bananas; sprinkle over them one tablespoonful of sugar and one of cold water. Pour over it the custard and set in a cool place. Serve cold. Oranges can be substituted for bananas; or a layer of orange and one of desiccated cocoanut are nice. Many other fruits can be substituted.

NEW BOOKS.

EX ORIENTE, a study of Asiatic life and thought, by Dr. E. P. Thwing, Brooklyn, 8vo., \$2. The aim of this volume is to show the breadth as well as value of Oriental studies. The people of to-day are of greater importance than the ruins of past centuries, and the equipment of missionaries should include a knowledge of Eastern life and sociological questions. This volume is elegantly printed in large type on fine, heavy paper, bound in red and orange with crimson edges and Oriental decorations. *Only 300 copies* are printed of the author's edition. A small edition in paper covers, 50 cents each, and boards, \$1, for students and for general circulation. Address the author, 156 St. Mark's Avenue.

Rev. Dr. R. S. Storrs, president of the American Board, says that "In thought and style it is fresh and animated, full of interest, abounding in suggestions, with an Oriental color upon them which quite fascinates the eye." A busy Boston pastor has read it through twice and extols its "philosophical insight, careful research and royal management of the subject."

BUSINESS NOTICES.

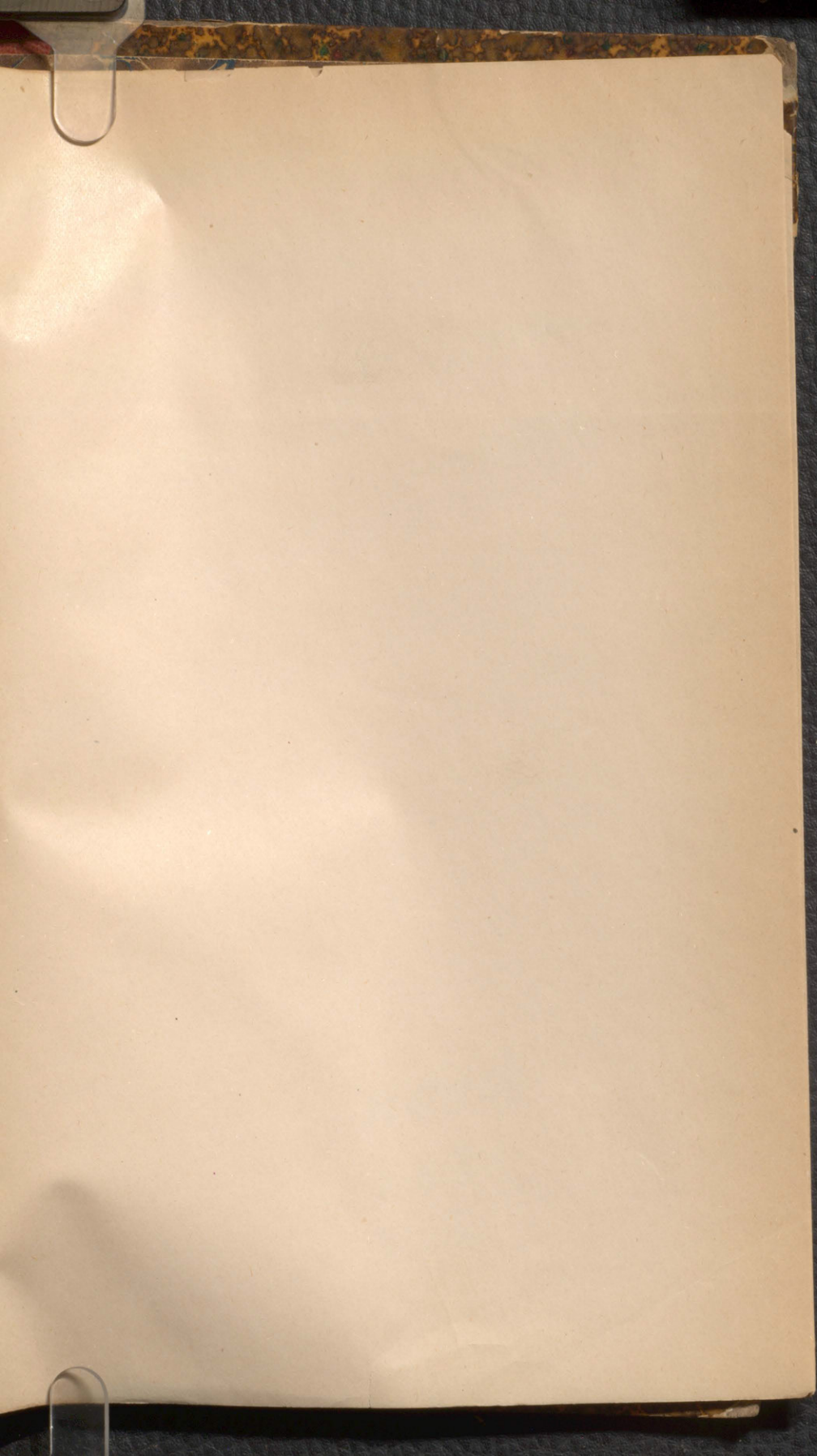
TO SUBSCRIBERS.—At the close of the year we wish simply to say to our subscribers that we desire them to send in their subscriptions for 1892 as early as possible. There are some names on our list whose accounts have not been settled for some time. We have great confidence that they will not allow this to continue much longer. We have to thank a large number of those who have sent us remittances during the past two months.

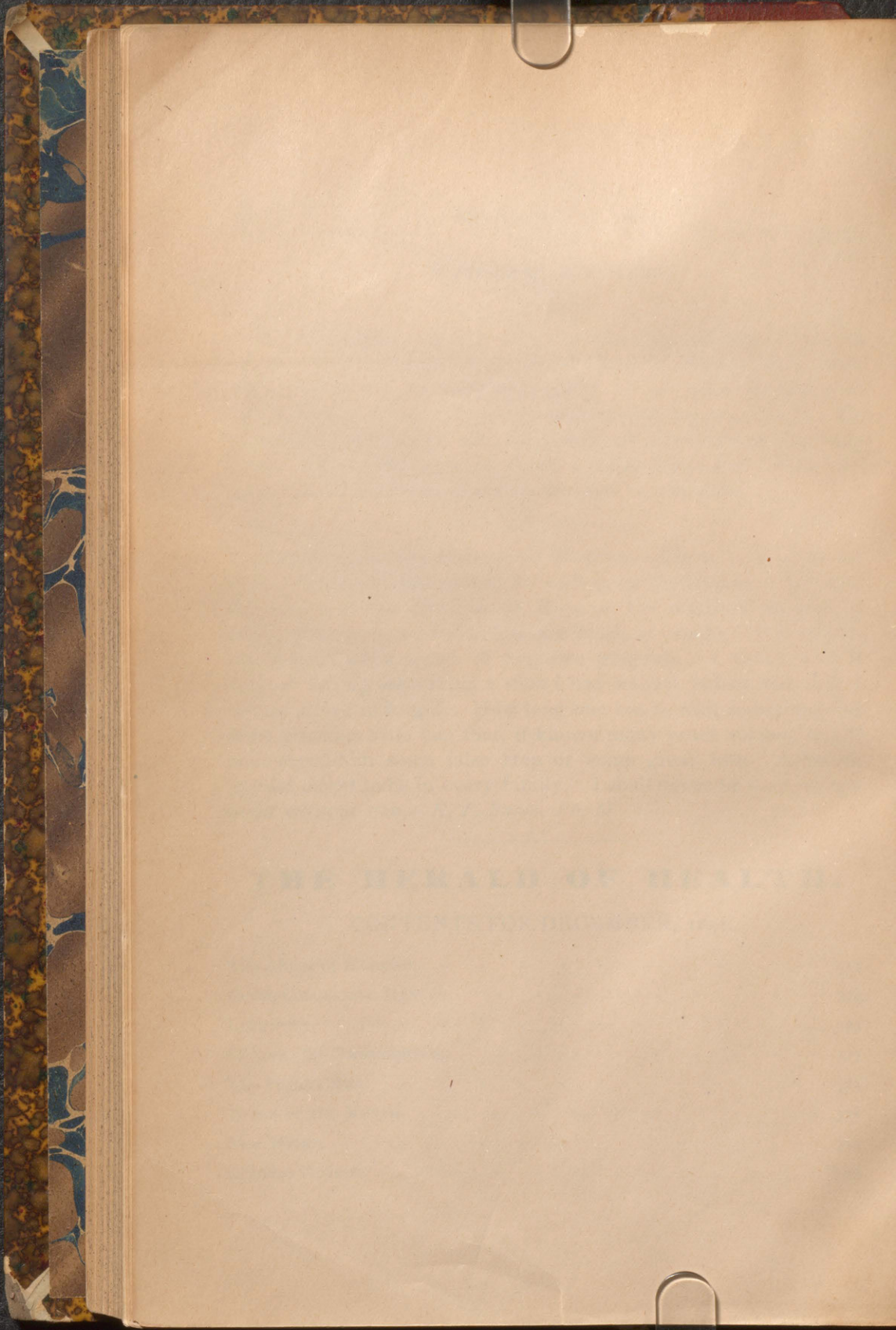
A TRIBUTE TO THE HERALD OF HEALTH.—There is a place for health literature, and profitable reading on the subject. My own best source is the HERALD OF HEALTH, the organ of no sect or party, and has never fallen into the hands of cranks. It is a treasury of facts and a record of hygienic progress. I never read it without finding something I wish I had known before and that I cannot afford to forget. How long one has to wait sometimes for some precious little fact that, if known many years sooner, might have saved him some false step or some great loss. A health journal ought to be in every family. I shall never be wise enough to do without one.—*E. F. Bacon, Ph. D.*

THE HERALD OF HEALTH.

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