Acc. no. 86

47, Brook Street, Grosvenor Square.W1.

Septer. 16 1917.

Dearthmellbans.

Terrer Gener

Many Manks for letting me

see this interesting drawing.

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proves that the calculus

is really a gall-stone.

Ledeard frint eleven gallstones ite an appender. Lancet \$ 1907 1 83. The condition is very pare. Ireturn the drawing with this rule. Ingles in five guneas. Juns sencenly Schn Mand Sutton

ar (1- 20 a butuenes Acc. no. 30 ILTHE DRIVE, WALTHAMSTOW, E. Jekg.19 Alar We wans. Schall re obliged it you will make an appointment to see a patient of mine Mallhamston of mo She is 34 years ald & has a hard lump in 4 bis water left breast. It may sam og puper suple adenoma but due alwars fels

E VIAO BRT.II MLE WOTENWARTENW . suspicious of these apparently beingn humps Rend regards your faithfully A Potten pr Eldred

War Office, Whitehall, 104 Queenck? S.W. Nimbledon Alar Sin I read with great interest 163.10 a huragraph in to days day wail which you are reported as saying " I Shall not be surpresed to hear before long of cases where x x X Rays concert has attacked operators in this way " ie - the legs and thought you might leke to Know of any such cases. Lwas farmerly a Warrant Officer in the the mloops and dia a lot of X Ray work in south Africa during the war and afterward in the hospitals at hedershot. I alwords bole precautions so far as my hands bere concerned, and to that fact, no doubt- is due my comparative

V: Howell Frans 25 Berkelen Sg:

hondon m

P.T.O

camunity from infany. my hands being one slightly burned, but ? Suffer for a violent itching of both legs worth along the this skin covering the inside of the tabia there is not much to see, but when I Scratch My legs, which are worst when the weather is Cold. there is a certain amount of scurf. the itching is very Similar to that at the base of my fingers, and I have server has any doubt that it is due to the effect of the X Rays

Ymrsfaichfully Alt Harmood

has barre 6 trouttes after our falliers death. DE deler, Tules tas devoted Bour Valleen. look dee Recuest interest in our prother - and gave line his medical & Theaten al-Vornito University. This dear brother, digd a low york in 1928 leaving 4 Eous - and one daughter 1. all leappily dearried, - lim-History ! and also view longbelay in sepering The medoadd -with Rifned rigards (the arthur trigge) Heary a. M. Frigge

214/4 118 College Hill 16th Marche Richmond 1949 P. Gue. Ully Dear Dr. Jeggie . Va fuly 1947 -Where at Fainbrew Luce Leuroxville p.que. Tilli The Herring - we were cheaking to If the Gill . and I unentered that any father Dr. C. F. a. Locke Thas a class wate of Dr to. Other - Pater fin Wes Other. . You uneliourd the hause

A Stenewson . and I said I had reany of the Carte de Tisitel " plustos - A-Aug dear Fathers - class Tustes. and I clingthe fremewe bured the trace, and would look it up. and right alouttes laten!) did. I come across these pleotographes. and the DE Stevensone. Where pleats V summered, gradeled Evidently in 18/11; and lies wapere is list Have.

But in case heis a relative of Haus Stevenson. Jane Deveding theme to You - to Brefs lif you tick -Degre. Here are many interesting photos - of inpury The Gill graduates . Farry lingth. Dr. Roddick. Dr. Harry lingth. and also - Dr. Campbell. auougst lleen . faller died in 1880 - only 29 - Due only brother ! also Dr. C. F. d. Locke of ber yor R -

h , erediceta planen fimilie ' It mel with mules you get well beyond Ite compris of the territory i hug hume « 0--51--3 0-91-61



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2 Cyst adenne - met putter - alment remained with cuties age energy mali attansta pepulline : als all heats with theme miling putter mple sheldbergen (4) Preak Summe my melow -nem lines free hatheline pre abette and (5) arming Comers enabled where the the nature (pertility - of the well bang much - Norstiance a teron a seption of put he ach nouchman , lagend a liferin (6) Fundant care Detall format to easy regs. " Doping much and rach a hostoly alme. Have much he erian the colore and the 7. Repetiding that he hat a (3')



TREASURER-W, BRO: LHOWELL EVANS, 25, ERKELEY SQUARE, s.w. SECRETARY- BRO: KENNETH KELLIE, 60,QUEENANN STREET, CAVENDISH SQUARE,W.



#### THE NATURE AND ORIGIN OF CANCER.

In connexion with the post-graduate classes arranged by the medical faculty of Vienna for the year 1924, it was proposed to include a series of lectures on carcinoma, which should furnish those attending the course, most of whom were medical men in actual practice, with a concise statement of the views at present held with regard to the nature and origin of the disease, its leading clinical features, and the main principles of its treatment. In order that medical men should be put in possession of something less evanescent than the subject-matter of a series of lectures is apt to prove, it was further proposed to embody the lectures in a book. The proposal has been carried out under the auspices of the Austrian society for the investigation and prevention of cancer, and twentyeight of the leading members of that society delivered a series of thirty lectures, which have now been issued in a single volume.6

There can be no doubt of the utility of a book of this kind. Not so many years ago the conception of carcinoma may be said almost to have been embraced in the two words " medullary " and " scirrhous "; since that time our knowledge has been extended, not only by means of the scalpel and microscope, but also by chemical, bacteriological, radiological; serological, statistical, and other methods, and the disease has been produced experimentally in animals. The busy practitioner has no time to follow the intricacies of the subject, and is probably more bewildered than informed by any attempt to do so. He desires to know briefly what is the practical outcome of all this research, and in the volume referred to he will find concise statements on this head by recognized authorities in the subject. Another advantage in a book of this kind is the total absence of all preliminary matter-definitions, classifications, and so forth, requisites for enabling the student to pass his examinations : practical matters such as

<sup>6</sup> Die Krebskrankheit. Ein Zyklus von Vorträgen herausgegeben von der Österreichischen Gesellschaft zur Erforschung und Bekämpfung der Krebskrankheiten. Wien; J. Springer. 1925. (Roy. 8vo, pp. 356; 95 figures. Paper cover, 30s.; bound, 33s.)

## Breast Tumours.

### By FRANK T. PAUL, F.R.C.S.

THE arrangement and classification of breast tumours does not appear to me to be as simple and satisfactory as it might be. Notwithstanding an immense advance in the knowledge of the evolution and structure of these growths, there has been very little recent change in

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I am writing this work not became there is any search of Birth upon this subject a not become I want to the the the the say of Smething his String become which the

#### Theories as to Cancer.

Professor Orth, of Berlin University, and Professor von Hausmann are reported to have claimed at a recent meeting of the Berlin Medical Society that cancer was neither contagious nor parasitic. They also declared that the supposedly alarming increase in the number of cases was wholly due to the fact that more cases were recognized now than formerly. They added that their investigations had failed to show that cancer was epidemic in particular places or prevalent in certain families through heredity.

They urged that the public be induced to abandon the theory that the disease was contagious, because it caused unnecessary odium to be attached to cancer sufferers. Professor von Leyden combated these theories. He said that parasites imbedded in

the cells caused the inflammation, and declared that chemic researches had demonstrated the parasitic nature of cancer.

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21 Thursday **IANUARY** 20 DAYS PAST Coloured Etching 345 DAYS TO COME St Martins Cathedrel Upres 21/2/10 11/11/1000 S. Fionemore Amiens Cathedral J. Finemate 27-64 by J. Finemate 17-10%-Bridge of Sigh Venice) 2pg byx, pgins applage Brene Antwerp - Early morning 2/19 2.11/2 mis applefe Brenn **1942 DECEMBER 1942** 1943 JANUARY 1943 **1943 FEBRUARY 1943** SMTWTFS SMTWTFS SMTWTFS .. .. 1 2 3 4 5 .. .. .. .. .. 1 .. 1 2 3 4 5 6 2 6 7 8 9 10 11 12 3 4 5 6 7 8 9 7 8 9 10 11 12 13 13 14 15 16 17 18 19 10 11 12 13 14 15 16 14 15 16 17 18 19 20 20 21 22 23 24 25 26 17 18 19 20 21 22 23 21 22 23 24 25 26 27 27 28 29 30 31 .. .. 24 25 26 27 28 29 30 28 .. .. .. .. .. ..

Anger is a short madness-BURTON'S ANATOMY OF MELANCHOLY

214/5

23 Saturday TANUARY 22 DAY'S PAST Coloured 343 DAYS TO COME Church of the Holy Sepulation formale Julifle one formale Rose Wandows - Rhemis 2 the 200 J. apple ment Maria Jaffer Brenn Ville. The Hotel de Abras I. apple Brennen 2/17/2×2/ **1942 DECEMBER 1942** 1943 JANUARY 1943 **1943 FEBRUARY 1943** SMTWTFS SM TWT S F SMTWTFS ..... 1 2 3 4 5 .. .. .. .. .. 1 .. 1 2 3 4 5 6 2 6 7 8 9 10 11 12 3 4 5 6 7 8 9 7 8 9 10 11 12 13 13 14 15 16 17 18 19 10 11 12 13 14 15 16 14 15 16 17 18 19 20 20 21 22 23 24 25 26 17 18 19 20 21 22 23 21 22 23 24 25 26 27

Bitter pills may have blessed effects-CHAUCER

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25Monday 🔩 JANUARY 4 DAYS PAST Coloured 341 DAYS TO COME Church of Notre Dame. Durant on the Mense, Belgin 2/1- 6 ms by 2/t ter g. applye mewer h g. affere anin Constitues Hener & orrenos, Granese from the albacy 2 ph 9 h 2 feet Cathedral Laon k g. applige Brewa "Bis Henry & Breve 2 provident The Catheoral of St Judule from the Rue de La Collegiale Brussels Belgen 1943 JANUARY 1943 1943 FEBRUARY 1943 1942 DECEMBER 1942 SMTWTFS SMTWTFS SMTWTFS .... 1 2 3 4 5 .. 1 2 3 4 5 6 .. .. .. .. .. 1 2 6 7 8 9 10 11 12 3 4 5 6 7 8 9 7 8 9 10 11 12 13 13 14 15 16 17 18 19 10 11 12 13 14 15 16 14 15 16 17 18 19 20 20 21 22 23 24 25 26 21 22 23 24 25 26 27 17 18 19 20 21 22 23 27 28 29 30 31 .. .. 24 25 26 27 28 29 30 28 .. .. .. .. .. .. By suppers more have been killed than ever cured—HERBERT'S OUTLANDISH PROV. · 2/2 gy

Vednesday 27 JANUARY 339 DAYS TO COME Rheim Cathole 2 ph que la 2. pt-A C. Brewer St. mark's Venie In 2p-6 i h 2ph Jappije onen (Prontion) (+ C. Prever Homes of Parlianent h. (H.C. Breven) 2/2 g - h 2/2 Rheins Catheoret fin South wire 24 10/2 h 2/7 3 w The Nave americ Cetterel , apply an 2 11-2 Jung 2410/25 1943 FEBRUARY 1943 1943 JANUARY 1943 1942 DECEMBER 1942 SM TW TFS SMTWTFS SMTWTFS .. 1 2 3 4 5 6 .. .. .. .. .. 1 2 .... 1 2 3 4 5 7 8 9 10 11 12 13 3 4 5 6 7 8 9 6 7 8 9 10 11 12 14 15 16 17 18 19 20 10 11 12 13 14 15 16 13 14 15 16 17 18 19 21 22 23 24 25 26 27 17 18 19 20 21 22 23 20 21 22 23 24 25 26 28 .. .. .. .. .. .. 24 25 26 27 28 29 30 27 28 29 30 31 .. ..

The sense of Death is most in apprehension-SHAKESPEARE

29 riday **JANUARY** 337 DAYS TO COME Colones DAYS PAST The Transport Serlle Collibrer 2/10/205 94 100 apply. Preme Dr. Preme H C Parena Toledo Cathedral 3 feet by 2/2 2/2-Westminle abbey South hanseft I apply onen. 3 feet he aft " Chancel Bayret St Paul's Catheral g. appa onen 21/102 / 2/2005 Jappy Brenn HC Brenne Burgos Catheral 2pt 10 h = 2pt ins Amiens Cathedral J. afflip Brens **1943 FEBBUARY 1943** 1943 JANUARY 942 DECEMBER 1942 SMTWTFS тwт F S SMTWTFS S M .. 1 2 3 4 5 6 . .. 1 2 3 4 5 .. .. .. .. .. 1 2 7 8 9 10 11 12 13 3 4 5 6 7 8 9 6 7 8 9 10 11 12 10 11 12 13 14 15 16 14 15 16 17 18 19 20 3 14 15 16 17 18 19 17 18 19 20 21 22 23 21 22 23 24 25 26 27 20 21 22 23 24 25 26 27 28 29 30 31 .. .. 28 .. .. .. .. .. .. 24 25 26 27 28 29 30

For there never was yet a philosopher that could endure the toothache patiently—SHAKESPEARE

unday Colum 31 **IANUARY** 335 DAYS TO COME DAYS PAST applese Brance Rheins Theatre 2/1-101/2 wohy 2/1 200 Norness THE SILENT (atheral Davery Pares Herbert Schule 3/1-3 m ly 2/26/2m Gefra Brazenne Coll & High St Milions Liftiles (? Brever) t 10m Cherwell Onfode !! I applege Brewer Paleis de Tustiee, Barlevare de Waterla aple ssel 1943 FEBRUARY 1943 JANUARY 1943 1942 DECEMBER 1942 1943 SMTWTFS SMTWTFS SMTWTES .. 1 2 3 4 5 6 .... 1 2 3 4 5 .. .. .. 1 2 6 7 8 9 10 11 12 7 8 9 10 11 12 13 3 4 5 6 7 8 9 14 15 16 17 18 19 20 13 14 15 16 17 18 19 10 11 12 13 14 15 16 21 22 23 24 25 26 27 20 21 22 23 24 25 26 17 18 19 20 21 22 23 27 28 29 30 31 .. .. 24 25 26 27 28 29 30 28 .. .. .. .. .. ..

Our remedies oft in ourselves do lie which we ascribe to heaven-SHAKESPEARE
2 <sup>-</sup>uesday FEBRUARY 2/b 3. 1/b 8. Cathedral. J. applepe Brew 2 DAYS PAST 2/6-3. 1/1 8 min Japple Brenny Verden from the Menne 2/3/ 1/18 Jappy Brenn Malmies Jaffly Bring Lowen I apply mu Hotel de Ville 21-3.5-11-7/2 seep There Shebechere Ship as Broken A.S.d. 1943 JANUARY 1943 1943 1943 MARCH 1943 FEBRUARY 1943 SMTWTFS S M T W T F S SMTWTFS .. .. .. .. .. 1 2 .. 1 2 3 4 5 6 .. 1 2 3 4 5 6 3 4 5 6 7 8 9 7 8 9 10 11 12 13 7 8 9 10 11 12 13 10 11 12 13 14 15 16 14 15 16 17 18 19 20 14 15 16 17 18 19 20 17 18 19 20 21 22 23 21 22 23 24 25 26 27 21 22 23 24 25 26 27 24 25 26 27 28 29 30 28 .. .. .. .. .. .. 28 29 30 31 .. .. ..

Thou hast been called, O sleep! the friend of woe But 'tis the happy that have called thee so—southey

Colment 4 hursday FEBRUARY 331 DAYS TO COME DAYS PAST The Choi Normal Cathed 27 quis 240mil Jappenewa St mark's Venice J. applage Brennen 2pq nix2pt J- apply Brenn antworp 2/16. a/t. Phenis The Name Jaffa Ca The Cathedrel of St Judice for the allegisk Ste Brunes 216: 2/1 1943 JANUARY 1943 1943 FEBRUARY 1943 1943 MARCH 1943 SMTWTFS M SMTWTFS TWT F S .. .. .. .. .. 1 2 .. 1 2 3 4 5 6 .. 1 2 3 4 5 3 4 5 6 7 8 9 7 8 9 10 11 12 13 8 9 10 11 12 13 7

Years steal Fire from the mind and vigour from the limb, And life's enchanted cup but sparkles near the brim-BYRON

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6 aturday FEBRUARY CONTRACTOR OF STREET, STRE 329 DAYS TO COME Rheims - South Transch 29/2: 1/9/2 - Japple Press 6 DAYS PAST Ratiolion for the Dambe 1-11- 1/17 m Brups. 2 f. 1185 J. applique Brown The Grand Canal Venice 242 is 176 in Jappy Burn hotre Dame Paris ( Pro) Evening on the menne "Hury" Brewer Broo 1943 MARCH 1943 1943 FEBRUARY 1943 1943 JANUARY 1943 SMTWTFS SMTWTFS SMTWTFS .. 1 2 3 4 5 6 .. 1 2 3 4 5 6 .. .. .. .. .. 1 2 7 8 9 10 11 12 13 3 4 5 6 7 8 9 7 8 9 10 11 12 13 14 15 16 17 18 19 20 14 15 16 17 18 19 20 10 11 12 13 14 15 16 21 22 23 24 25 26 27 17 18 19 20 21 22 23 21 22 23 24 25 26 27 28 29 30 31 .. .. .. 24 25 26 27 28 29 30 28 .. .. .. .. .. ..

When beggars die there are no comets seen-SHAKESPEARE

antwerp Cups

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*Ionday* FEBRUARY 327 DAYS TO COME DAYS PAST The Church 1943 MARCH 1943 1943 1943 JANUARY 1943 1943 FEBRUARY SMTWTF S SMTWTFS F S S M т W т .. 1 2 3 4 5 6 6 .. .. .. .. 1 2 . .' 1 2 3 4 5 . . 7 8 9 10 11 12 13 3 4 5 6 7 8 9 7 8 10 11 12 13 9 14 15 16 17 18 19 20 10 11 12 13 14 15 16 19 20 18 14 15 16 17 21 22 23 24 25 26 27 17 18 19 20 21 22 23 23 24 25 26 27 21 22

The environment of today is the heredity of tomorrow-TREDGOLD

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21 DAYS PAST

22

Friday

344 DAYS TO COME



Goats' milk and camels', as by all is known, Relieve poor mortals in consumption thrown; While asses' milk is deemed far more nutritious, And, e'en beyond all cows' or sheeps', officious. But should a fever in the system riot, Or headache, let the patient shun this diet. Cows' milk gives wonted heat to every part, And quickly dissipates the acrid smart Of tainted humours, with a soothing art. . . .

### JANUARY

23 DAYS PAST

342 DAYS TO COME

Sunday



Butter soothes, moistens—all this without fever; Whey proves a cleanser and a full reliever. Cheese naturally is both cold and cloying, Heavy and crude, and to digest annoying. Yet those in health their hunger can appease, With nothing better than plain bread and cheese. But poor dyspeptics ever must beware, How they mix bread with this deceitful fare.

24

25 DAYS PAST

340 DAYS TO COM

Tuesda

26



We hold that men, on no account, should vary

Their daily diet until necessary; For, as Hippocrates doth truly show, Diseases sad from all such changes flow. A stated diet, as it is well known, Of physic is the strongest corner-stone.

- By means of which, if you can naught impart,
- Relief or cure, vain is your Healing Art.

## JANUARY

27 DAYS PAST

Quoth Galen, they should never given be To bilious men, with whom they'll disagree. Yet for lymphatics deems them wholesome food. Asclepias praises them in highest mood. They aid the stomach, also cause to start A handsome colour in a hairless part. . . . They'll cure dog-bites, and give relief, 'tis said, In Oxymel, when on the surface spread.

Doctors in Onions diff'rent virtues see:

338 DAYS TO COM

Thursda



28

29 DAYS PAST

Saturda

336 DAYS TO COM

30



The nettle to the sick man slumber brings; Checks qualms, and need of all emetic things. From painful colics patients may be freed By eating honey which contains its seed. When in decoction used, it will drive off Catarrh, or any long-protracted cough; From ventral tumours give relief as well, And joint diseases cure with magic spell.

### FEBRUARY

31 DAYS PAST

Monda

334 DAYS TO COM

1



February breeds fever in our veins; Eat little and escape repletion's pains.

Nor bleed from thumb; be careful of a chill, And should you eat of goose, or beet, or dill, Take wine; then may you bleed your thumb at will. 33 DAYS PAST

332 DAYS TO COM

Wednesda



Thus treat your teeth whene'er they chance to ache; The seeds of leeks, selected wisely, take; Burn them with sweet frankincense mixed, nor yet To introduce some henbane leaves forget; Then through a funnel broad allow, forsooth, The smoke to be slow drawn into the tooth. Of bones, man's body, as is plainly seen, In all has some two hundred and nineteen; Of teeth, in number, thirty-two contains, With full three-hundred-five-and-sixty veins.

3

### FEBRUARY

35 DAYS PAST

330 DAYS TO COM

Frida



Four humours form the body in this style, Atrabilis, Blood, Phlegm and yellow Bile. With earth atrabilis may well compare, Consuming fire with bile, and blood with air; Blood is moist, warm, and vital as the air; While phlegm is cold, through water's copious share;

Bile burns like fire, where'er it flows along; Gall, dry and cool, to earth bears likeness strong.

#### FEBRUARY

37 DAYS PAST



328 DAYS TO COM



Such are by nature stout, and sprightly too, And ever searching after gossip new. Love Venus, Bacchus, banquets, noisy joy; And jovial, they kind words alone employ. In studies apt—pre-eminent in arts, No wrath from any cause e'er moves their hearts. Gay, loving, cheerful and profuse in all, Hearty, tuneful, wherever fate may call; They're florid, bold, and yet benign withal. 39 DAYS PAST

Tuesda

326 DAYS TO COME



With headstrong people yellow bile sorts well, For such men would in everything excel. They learn with ease—eat much and grow apace, Are great, profuse, and avid of high place. Hairy, bold, wrathful, crafty, lavish, shrewd, Their form is lithe, complexion saffron-hued.

## NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, TOTTENHAM, N. 15.

(In association with the Fellowship of Medicine and Post - Graduate Medical Association).

# Syllabus of Special Post-Graduate Course

TO BE HELD FROM

## October 16th to October 28th, 1922

- The fee for the Course, to those who are not members of the Fellowship of Medicine, is 5 guineas, (or 3 guineas for either week).
- Names of those wishing to attend should be sent not later than October 12th, to the Dean at the Hospital (or at 19a, Cavendish Square, W.1).

ROUTES.—To Finsbury Park (by G.N. Ry., the Brompton, Piccadilly and Finsbury Park Tube, the Moorgate Street and Finsbury Park Tube, etc.) and then by the Edmonton Electric Trams.

RAILWAY STATIONS.--Midland; S. Tottenham; G.E. Ry.; Seven Sisters, or (main line) Tottenham Hale.

Time	Monday, Oct. 16th.	Tuesday, Oct. 17th.	Wednesday, Oct. 18th.	Thursday, Oct. 19th.	Friday, Oct. 20th	Saturday, Oct. 21st. (11 a.m.)	Monday, Oct. 23rd.	Tuesday, Oct. 24th.	Wednesday, Oct. 25th.	Thursday, Oct. 26th.	Friday, Oct. 27th.	Saturday, Oct. 28th. (11 a.m.)	Subject.
10.30 to 11,30	The Polygraphic Method in the Study of Heart Disease, Dr. A. J. Whiting.	Methods of determining Blood Pressure change and its significance. Dr. J. Browning Alexander.	Methods of Examining Cases of Nervous Disease. Dr. L. R. Yealland.	Antenatal influence as bearing on Teeth Formation. Mr. E. Spencer Pierrepont.	The Histology and Parasitology of Skin Diseases. Dr. W. Jenkins Oliver,	Demonstration of ting the Early diag fectious Fevers. Thomson, at the Hospital, St. An	The Polygraphic Method in the Study of Heart Disease. Dr. A. J. Whiting.	The Bacteriology of Intestinal Catarrh. Mr. T. H. C. Benians.	The X Ray Diagnosis of Bone Tumours. Dr, S, C. Shanks.	The Diagnosis of some important Eye Conditions. Mr. Norman Fleming.	The Histology and Parasitology of Skin Diseases. Dr. W. Jenkins Oliver	Demonstration of t Common Mental the L.C.C., Mer New South Dr. L. H. <sup>1</sup>	nd Laboratory roups of Cases, etc.
11.45 to 12.45	The Bacteriology of Respiratory Catarrh. Mr. T. H. C. Benians.	The Diagnosis of Gastric Cancer. Mr. H. W. Carson.	Methods of Examining the Nose and Throat. Mr. C. H. Hayton,	Methods of Examining Cases of Nervous Disease. Dr. L R. Yealland.	Constipation and Intestinal Stasis. Dr. F. G. Crookshank.	Cases illustra- nosis of the In- Dr. Frederic North-Eastern North-Eastern n's Road, N.	Methods of treating certain Fractures. Mr. W. E. Tanner.	The Examination of the Kidneys. Mr. J. Howell Evans.	Methods of Examining the Ears. Mr. C. H. Hayton.	The Diagnosis of Gall-Stones. Mr. H. W. Carson.	Orthopædic Appliances. Mr. E. Gillespie.	ypical cases of Disorders, at Ital Hospital, gate, N. Wootton.	Clinical a Methods, G
2 to 3	Lesions of the Breast. Mr. J. Howell Evans.	Diagnosis by X-Rays. Dr. J. Metcalfe.	Cases of Thyroid Enlargement. Dr. J. Browning Alexander.	Selected Surgical Cases. Mr. W. E. Tanner.	Selected Cases of Nervous Disease. Dr. L. R. Yealland.	,	Lesions of the Tongue. Mr. J. Howell Evans.	Treatment by X Rays. Dr. J. Metcalfe.	Selected Cases of Children's Diseases. Dr. C. E. Sundell,	Cases of Heart Disease. Dr. A. J. Whiting.	Selected Radiological Cases. Dr. S. C. Shanks,		Demonstrations of Groups of Clinical Cases.
	In-patients. Dr. A. J. Whiting. Out-patients. Dr. J. Browning Alexander.	In-patients. Dr. F. G. Crookshank. Out-patients. Dr. L. Yealland. Children In-patients. Dr. C. E. Sundell.	Out-patients Dr. J. Browning Alexander.	Out-patients. Dr. A. J. Whiting. Out-patients. Dr. L. Yealland.	In-patients. Dr. F. G. Crookshank, Children Out-patients. Dr. C. E. Sundell.	Medical.	In-patients. Dr. A. J. Whiting. Out-patients. Dr. J. Browning Alexander.	In-patients. Dr F. G. Crookshank. Out-patients. Dr, L Yealland. Children In-patients. Dr. C. E. Sundell.	Out-patients. Dr. J. Browning Alexander.	Out-patients, Dr. A. J. Whiting. Out-patients, Dr. L. Yealland.	In-patients. Dr. F. G. Crookshank. Children Out-patients. Dr. C. E. Sundell.	Medical.	lues ).
2 to	In-patients. Mr. H. W. Carson,	Out-patients. Mr. J. Howell Evans. In-patients. Mr. J. Howell Evans.		Out-patients Mr. H. W. Carson.	Out-patients. Mr. E. Gillespie. In-patients. Mr E. Gillespie	Surgical.	In-patients. Mr. H. W. Carson.	Out-patients, Mr. J. Howell Evans. In-patients Mr. J. Howell Evans.		Out-patients. Mr. H. W. Carson.	Out-patients. Mr. E. Gillespie. In-patients. Mr. E. Gillespie.	Surgical.	ork and Clinic departments. e notice board
4	Radiological Department Dr. S. C. Shanks. Gynæcological Out-patients Mr. J. Bright Banister. Venereal Department. Dr. F. L. Provis and Mr. T. H. C. Benians, 6.30 p.m.	Throat, Nose and Ear Out-patients. Mr. C. H. Hayton. Radiology and Electrical Methods. Dr. J. Metcalfe.	Eye Out-patients. Mr. Norman Fleming. Skin Out-patients Dr. W Jenkins Oliver. Venereal Department. Dr. F. L. Provis and Mr. T. H. C. Benians. 5.30 p.m.	Radiology and Electrical Methods. Dr. J. Metcalfe.	Radiological Department, Dr. S. C. Shanks. Venereal Department, Dr. F. L, Provis and Mr. T. H. C. Benians, 6.30 p.m.	Special.	Radiological Department, Dr. S. C. Shanks. Gynæcological Out-patients. Mr. J. Bright Banister. Venereal Department. Dr. F. L. Provis and Mr. T. H. C. Benians. 6.30 p m.	Throat, Nose and Ear Out-patients. Mr. C. H. Hayton. Radiology and Electrical Methods. Dr. J. Metcalfe.	Eye Out-patients. Mr. Norman Fleming. Skin Out-patients. Dr. W. Jenkins Oliver Venereal Department. Dr. F. L. Provis and Mr. T. H. C. Benians. 5.30 p.m.	Radiology and Electrical Methods. Dr. J. Metcalfe.	Radiological Department. Dr. S. C. Shanks. Venereal Department. Dr. F. L. Provis and Mr. T. H. C. Benians. 6.30 p.m.	Special.	General Hospital W in the various (As posted on the
•	Mr. E. Gillespie.	Mr. H. W. Carson,	Mr. C. H. Hayton. (Throat)	Mr J. Bright Banister. Gynæcological	Mr. J. Howell Evans.	Opera- tions.	Mr, E. Gillespie.	Mr. H. W. Carson.	Mr. C. H. Hayton. (Ears)	Mr. J. Bright Banister, Gynæcological	Mr. J. Howell Evans.	Opera- tions.	
4.30 to	Colitis.	Chronic Appendicitis.	Dysentery and its Treatment.	Intestinal Diverticula and Diverticulitis (Lantern).	Rheumatic Affections of Childhood.		The Surgical significance of Abdominal Pain. Mr. H. W	The Symptoms and Modern Treatment of Syphilis Dr. F. Liopel	The Medical Treatment of Gastric and Duodenal Ulcer.	The Pathological basis of Lochial Irregularities. Mr. L. Bright	Clinical Consultation.		nical Lecture
0.30	Crookshank.	Gillespie.	Manson-Bahr.	Evans.	Sundell.		Carson.	Provis.	Dr. J. Browning Alexander.	Banister.			Cli

NOTE.—Luncheon will be obtainable in the neighbourhood of the Hospital as posted on the Notice Board.

A. J. WHITING, Dean

Tea will be provided each day at 4 pm.



## JOHN LOCKE'S PAPERS

## NEW ACQUISITION BY THE BODLEIAN LIBRARY

## FINANCIAL HELP FROM PILGRIM TRUST

#### By Sir Edmund Craster

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travel, settled down in Oxford as a prac- printed. intly tising physician. He evaded taking orders, TOTOP and, in spite of long periods of absence FOREIGN CORRESPONDENCE abers er of from the University, continued to hold his tably taken studentship until 1684, when he was deprived of it under royal mandate, in con- Limborch, with whom he was in cornmesequence of his attachment to the Earl of respondence from 1684 onwards, has left 81

has sequence of his attachment to the Earl of ency. Shaftesbury. That ended his Oxford connexion. He had already retired to tait the Holland, and it was only after his return tence at the Revolution that the publication of the first of his famous works, the "Essay Concerning Human Understand" ing." put him at once in the front rank of 2,000 printed books to be divided between two legatees, to one of whom, his young cousin Peter King (afterwards Lord King), he also left his papers and correspondence. The books have been dispersed, but the manuscripts remained practically intact in the custody of Lord King's descendants; had placed them, until they were deposited by the jacet dem, until they were deposited in 1942, in the Bodleian Library, Oxford, in 1942, in the Bodleian Library, Oxford, in 1942, in the Bodleian Library, Oxford to they have now been bought for the sole boy, the generosity of the Pilgrim Trues. Whoh he enders and the pilgrim to the sale to Bodley and remains in private

possible by the generosity of the Pilgrim ding and

\* the once John Locke," which the seventh Lord King and drafts of the treatises he wrote, they allow John Locke," which the seventh Lord King
John Locke," which the seventh Lord King
and drafts of the treatises he wrote, they allow
a close student to trace stage by stage the
development of Locke's ideas, and establish
the some of the most interesting parts of
Locke's correspondence as well as excerpts
pieces and long extracts from the journals.
But, though his work was competent, it
turetrevealed, but far from exhausted, the use
totat can be made of the collection. Locke's
later and principal biographer, Mr. Fox
Bourne, was not allowed access to the
Lovelace papers. Professor Aaron, investigating Locke's famous Essay, saw enough
of them to be add to be add to be add to be passions." That Discourse is here found, though it may not have the final form which out

Nearly 300 years have passed since John Mr. Locke "; or by the stilted but amatory Intry Nearly 300 years have passed since John
I all Locke came up as a Westminster boy to Oxford. Elected to a studentship at Christ and Church in 1652, after graduating he stayed up, first as Greek lecturer, then as lecturer on rhetoric, and finally as censor of moral philosophy: and, after some foreign travel, settled down in Oxford as a praction.
I the philosophy: and, after some foreign travel, settled down in Oxford as a praction.

Locke's foreign correspondents are well represented. His greatest Dutch friend, Philip

stantial common-place book has been excepted from the sale to Bodiey and remains in private Trus, which has made a very substantial from the sale to Bodiey and remains in product of the possession; from it Professor Aaron and Mr. Joscelyn Gibb published in 1936 an early draft of the "Essay Concerning Human Understanding."

The Lovelace collection, now secured thousand loose papers in the collection that thousand loose papers in the collection that most new light can be thrown on Locke's writings. As it was his practice to enter in his note-books excerpts from the books he read

Bodletan. Their acquisition has been made possible by the generosity of the Pilgrim Toust, which has made a very substantial contribution towards the cost of purchase THE LOVELACE COLLECTION. The Lovelace collection, now secured for Oxford, was already known through the medium of the "Life and Letters of John Locke," which the seventh Lord King the once Out ler .18 The brought out in 1829. Lord King published some of the most interesting parts of Locke's correspondence as well as excerpts the fects. \$ 50 from the more noteworthy manuscript milus pieces and long extracts from the journals. ould But, though his work was competent, it zatre. revealed, but far from exhausted, the use furethat can be made of the collection. Locke's wliti-We later and principal biographer, Mr. Fox frus-Bourne, was not allowed access to the aving Lovelace papers. Professor Aaron, investimany gating Locke's famous Essay, saw enough

The collection comprises correspondence.

But there is much besides that deserves pub-

of them to be able to say, with justice, "The biography of Locke is yet to be R. near written; for no biography of him can be complete which does not take the Love-

ding

lace collection into account, and which ration does not indeed build upon it almost entirely." It has now been submitted to an value of the Clarendon Press by Dr. W. von venue hard-Leyden, of Durham University, with a is the view to the publication of selected papers. as it His exhaustive reports form the basis of ment is this article.

perling et the

journals and note-books, and miscellaneous manuscripts. The correspondence includes some 2,550 original letters addressed to Locke, with : and about 150 of Locke's replies or draft answers. Lord King printed only 98 out of this large number. His choice was judicious. at not 21 ex-

This large number. His choice was judicious. He printed a number of Locke's own letters; the majority of the letters addressed to him by Charles Mordaunt, Earl of Peterborough; and 12 out of the 13 letters from Sir Isaac Newton. The late Professor Benjamin Rand published in 1927, under the title "The Correspondence of John Locke and Edward Clarke" 0, 1 out in the agree nt cir-

rginal an the of John Locke and Edward Clarke," 91 out of the 94 letters written to Locke by the friend to whom he had addressed his " Thoughts on Education." nquire Janish official Education.

too would hard-

g way

lication. The collection contains the replies to most of Locke's letters that have so far to most of Locke's letters that have so far appeared in print, and so presents the reverse side of his correspondence. The new informa-tion it contains is mainly biographical, and concerns especially the early and formative period of Locke's life, of which little is other-wise known. Details are hence recoverable re-versioned his life and friendshine in Oxford. quited l, and tread But if trolgarding his life and friendships in Oxford. Persons familiar with the meagre and cadayirable dd be erous features depicted in Locke's portraits which may be surprised by the love-letters he received prifrom the young ladies of Black Hall, who, in his absence, looked at one another in melanitain's choly fashion, " sighing in a pitiful tone, Ah

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sex.

an. Their acquisition has been made has now discovered the key

the medium of the "Life and Letters of writings. As it was his practice to enter in his note-books excerpts from the books he read and drafts of the treatises he wrote, they allow a close student to trace stage by stage the development of Locke's ideas, and establish the fact that the subjects discussed by him in the writings he published from 1690 onwards had been occupying his mind for 20 or 30 years before. The "Essay Corcerning Human Understanding" was first published in 1690, but the draft of it in Locke's common-place book dates from 1671. Other treatises written by Locke and as year unwahished on the unit by Locke and as yet unpublished go to sup-plement the famous Essay. It deals but briefly with the ideas of pleasure and pain, their fuller treatment being reserved for a "Discourse on the Passions." That Discourse is here found, though it may not have the final form which Locke would have given to it.

## THE "LAW OF NATURE"

Of yet greater interest is Locke's hitherto unknown treatise on the "Law of Nature." Is was written in 1660-64, and therefore would effirely." It has now been submitted to appear to be his earliest work. In this treatise, a thorough-going examination on behalf of about 15,000 words he wrote down his views In this treatise. on morality and knowledge almost 30 years before his first book was published; and its discovery explains the curious absence from his printed work of any detailed discussion of that natural law which forms the basis of his whole system.

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The variety of Locke's intellectual interests is reflected in the Lovelace collection. Not perhaps in its entirety, for there is nothing here that bears upon his work as an educational reformer, and little to throw new light on the political thought of the author of the "Treatises on Government." For his con-nexions with the first Earl of Shaftesbury, under whom he served as secretary to the Council of Foreign Trade and Plantations, re-course must still be had to the Shaftesbury. course must still be had to the Shaftesbury Papers in the Public Record Office, though there are a good many papers here that relate to Carolina and other American colonies.

There is a treatise on Nonconformity and two on the right of the civil power to interfere in matters of religious worship, from which no more than a few passages were extracted by Lord King, and there are drafts of some of Locke's published writings on money and recoinage, written 20 years before they and recoinage, whiten 20 years before inex, appeared in print. The medical observations scattered through Locke's journals and note-books attest his extensive practice as a doctor and illustrate his indebtedness to his elder Oxford contemporary, Thomas Sydenham. These, with Locke's verses, his library cata-logues, and his account books, complete the portrait of the man. The Loweleve collection portrait of the man. The Lovelace collection will remain a standing example of how history gains if a great man's papers are retained intact and saved from dispersal in the sale room.

\*\* Picture of Locke's shorthand on page 10.

at 2.0 & 7.0. Clarkson 7.0. Matinées, Weds. & and PEGGY ASHCROFT in Color los une ante arceffen 3ª vie soo any 2 y t I > Cashey & Sight 32.) Evgs., 7. Matinets, Cyril Ritchard, Madge Viltue in Danger." Jan. 14th. James Bridie's VE. Evgs., 10, Th. St. 2.30, OMPANY. Evgs., 645, Tues., TAMING of THE Evg.), SAINT JOAN, Fri., K. KING RICHARD'II. Y'S AUNT is packing 1.& 7.0, Popular Prices, d Circus. (Ger. 7373.) myste alcoholificturation of 3" 3 M 1. high high 7 h f 7 h w L - hury n10 1- 1 5 1 7' at - p & 2 m cabaraly in 7 stranger n 7 r & Brank 1. of R = + 3. ( "Act. 23- 40 paul hing yet at the faith house or he have say - Drivine pennie Mr Capt de genet officer: 1 up - 1 formes d Circus. (Ger. 373.) nurs., 2.40. MICKEY rific Variety Bill. 7.0. Mat., Sat., 2.30. 75. by JAMES BRIDTE. 75. A Naval Comedy by my the Shrinemaker lead Dei a summell' & not - 1' 1' Copel ; Trid. Feb. 12 con - 1 governor 2 perpetuale 6 y 2 Soc. 434.7 7 Then is ice in the morning profil 7 for a stadel n 14 7 1.6 7. Thurs., Sat., 2.30. THE TOWN, with 438 8 7 it h n & p at & splaneds he 933.6 j Daily, at 2.0 & 6.30. HE WOOD, "Monto formity Lang ! officery & gamion HE WOOD. MOR-George Gee. Vreet. (Whi, 8681.) SHED and Big Cast in 500 perfs. Last week. 53 only, 7. PRIVATE W St. JOHN ERVINE, -11.0; Wed., Thurs., Ja question when then we argument on both Dot me pophing proof 4 to propose rate to a grad many regularly heavy a pophier proof 4 always prived 6AC \$ 57 6.00 Flursd Feb 11 view some nate of force which we have a sopre hand, when as her negative against know wat ý 4 9 7 K. 7. Tues., 2.30. Sats., ell, DARK SUMMER. generally m we thing move not small bing • NOUR AND OBEY 1.2. + - 1 - 1 Matinées, Wed. & Sat. IFE WITH FATHER. 2 & 6, until Jan. 31st. BOA not

n Arnold's STARS ON cellens, Dabhne Walker, Daily, 2.30 & 7.0, The WIZARD OF OZ.

SHORTHAND IN 1677.—Parts of two pages of John Locke's Journal for 1677, in which an example of his shorthand system occurs. He was at Montpellier at this time. An article on his papers acquired by the Bodleian Library appears on page 5. A key to the shorthand has been discovered by Dr. W. von Leyden, of Durham University.

## SATRON, RICHMOND, YORKS. Jume 25 = (923.

214/8

Dear Lin With reference to yours of the 30 = ult. I am sending two microscopical Slides, which might be of use to you. They are the only ones I have & 9 for them when at College. I also enclose note taken from the Journal of Comparative Therapeutics. If the chides are of any use to you you might keep them if no use you might return There. Thave my come across me

case of abnormal testicle in my experience. This was larger than ordinary & considerably larger than its fellow. It has three cysto - one containing about - one tablesprouful of clear fluidanother Containing about three Tablespronfiels of a viscid white fluid, mather Thicker than the white of an egg & the other Cyst contained a piece of hair about I inch long & & of an inch thick, takering to each eus. If I should come across any tomon I should be pleased to send it you. Trusting you will have succes in your minestigations. yours faithfully M. Clarkson M. R. C. N.S.

Shide for 7. 2 Sparm

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214/8

9. Veratoure pou e

Black Wy and the Coch (hubby the my can have)



TUMOUR LII. Chondromata in the Testicle of a Colt.—The testicle in this case was removed by Mr Ridgman, Liskeard, Cornwall, from an eighteen-months-old cart colt. A few weeks after the animal's birth the owner had observed that the left side of the scrotum was larger than the right, and this disparity in size continued until castration. The left testicle was found on removal to be about as large as the human fist, while the right was abnormally small. On section the former was found to be composed of firm yellowish white tissue, imbedded in which there were irregular masses of hyaline cartilage and a few spicules of bone. Numerous cysts were present; and some of these were entirely surrounded by cartilage. Some of the cysts contained a watery fluid, and the contents of others were thick and pus-like. Microscopic examination of the cyst contents showed numerous columnar epithelial cells but no spermatozoa.

Aug 24th. '23.

KING EDWARD VII. SANATORIUM, MIDHURST.

Dear Sir,

KING EDWARD CONS MORE NORTH

In reference to your enquiry re Tumors of the Testis, I regret that I have no first hand information concerning such, but enclose such micoscope slides that I have of lesions of the testis.

Those slides that have no Pt's name on the label were given to me by a Colleague (Prof. M. J. Stewart, of Leeds); I have no more information of these slides than what is shown in the section.

If there is anything further you wish to know concerning the enclosed slides I will do what I can to help.

Kindly return them at convenience.

yours faithfully,

A.H. Miller. n.D.

of thickening of cord. , The section was starned today with dogwood train. I also sent a left lestic removed from a child 13 monits old by a Mr. S. J. Crymble at the Childrein Acop. If not asking too much you might kindly give as your opinion about it also, The other two opecamens sent here been here for a long time, and I am not sure of the history of them. I am sorry for not acknowledging the cheque you were kind crough to send me for which I am very grauful. Yours sincerey R. Th. Steven

Sathology Department July 18th 1923

I. Howell Evan by. Th. D. J. R. C. S. Deur Sir - an laking the liberty of writing you to see if you would be good erough to gue your opinion on the enclosed Dection of a tumor of the lesticle I sent to you on the 12th of this month. It was removed from a child on the 11th of by a The Hall at the Children's Hospilal here, The child is 3 years da.

The timor was repidly growing, and clinically resembled hydrocele, but more tense & spague. No glands

Country Builings. Durifico. 3 July 1923. Dear Sir. In human to your Wher of lash months and action and author of lash mon section section and authority woh quite in beer dans with your represh shil I trush they may had service to you. Shawle glas tohan this tack ahopen Convince. Joursving Trinky J. W. medlock. Coursely Sherraching Suspector.

214/12 • June 137# 1923 bear Lie 1 an afraid I have available at predent the data of one lade. It was a child of two years wilt a timow of the hight Titles. The gland had been vie vreaking in Lije for two moults when here by me . It prelentet a pyriform horthing of the letterte wilt larger end below of the advant to shime, thre was no Hydrocele, the cord was not Clichand. Those wore no whayed glands anywhere & the child tough this, heured otherwest halty. The Texticle was removed

Hill Prest I Harbach Boundt Deptio Rugby 5/7/23 Den Mr. Howell Evens The section of the Terdone of It Testis was dried to a crust t could not have been made of any use but I enclose a good slide mede at the time which I hope will be areful. Will regard to the patient, withen In Eunterlidge no agrelf could find any signo of disease in the remaining Verticle on examination ofthe two tatting of the hydrocele.

If putter developenal occur ? vil let you know. I can not alle to go to be Cryped Grauch Midial Dinne. In the country on an even non Vid then is the

Kom. Jour sinand, Jahoble

ha. With

\* togetter wilt the cord & its covorings as high up as possible without opening the periton um. On Lection growthe was hem to occupy the body of the testis & affarently originalist in its lower pole. The spicitymis was pircled upon it, thus giving the pyriform Shape, but was not involved. The cord & coverings offerand round. The follotogical refore was Rabdongdorcoma; follibly the growth originated in the gubernaculum The family history was negative & toul had been no injury. The child word dit-clarged from hospitet at the end of 10 days 21 have not seen it find Yours bruty John Corfforton

214/14 23 Bank St. Farryhill - aberdeen Dear Dir. 8 th Aug 1923. Your P.C. to hand, glad the material arrived safely, I have another large horse tumous here and am waiting for some from Dundee so will dispatch the lot at once. This horse -died from Grass sickness, and The left festile had never chescended, it was found attached to jut and The Vet. diagnosis this as a kind of chondroma, Enclosed are five stides from specimens which are in Paris and They are as follows :-13/ Choroma Anan. 661 Teratoma Man 1992. - do - - do -1919 Tumour? Dog. The other Jumour from a horse These are all from Prof Payron Pasteur hist. Paris, he is a friend of our prof and recently published a paper on the festicle and he has a wonderfull collection, why not try him for some material. These stidis three or four of each have been sent us for class purposes and I had Them to stain so managed

to steal these for you. I am in touch with all The Vets in aberdeenshire who are all on the look out for you, I have great hopes of some cat & dog testicles for you in The near future. We had a P.M. to-day on a Sarcoma liver case, with Accondaries everywhere but nothing doing in the Festicle, in fact, These were The only hormal organs left. You might keep in touch with Dr Burton, Bacteriologist, Royal Informary, Glasgow, he gave us all he had, and if you write and Thank him This may lead to some more, they get a Vast amount of shift there. Jours Obedeently, W. A. helson.

214/14

TEL. NO. 447 SOUTHPORT.

AT HOME: AFTERNOONS: TUESDAY WEDNESDAY FRIDAY SATURDAY EVENINGS: TUESDAY FRIDAY SATURDAY B - 9.

## 31, CHURCH STREET, SOUTHPORT.

13th June, 1923.

J. Howell Evans, M.D., F.R.C.S. 25, Berkeley Square, LONDON.

Dear Sir,

With reference to your communication of May 30th, I herewith enclose six slides, which may probably not be of any interest to you in your special work, but if any of them should be, I shall be very glad if you will make use of them, and in any case whether not of interest to your present investigation or otherwise, I shall be very much obliged if you will return them at your earliest convenience.

214/15

- 1. Teratoma of testicle with carcinomatous area. Aged 42. As far as I know no recurrence.
- 2. Haemorrhagic testicle cyst with cartilagenous wall. Query Terratoma. Structure was very hard and contained only disorganised haemorrhagic debris.
- 3. Tubercular testis with giant cell system.
- 4. Colloidal carcinoma of testis. Aged 38. No secondary deposits found elsewhere. Apparent recovery from a condition thought to be primary.
- 5. Tubercular infection of hydrocele sac. Tubercular deposits shown, which when removed as for an ordinary hydrocele, proved on section to be Tubercular.
- 6. Tubercular Epididymitis with giant cell system

Probably Nos.3 and 6 are outside the province of your present work. The others may be of some interest. As these belong to a collection which I have, I will be glad of their return at your convenience.

Comin Yours truly,


## H.K. LEWIS & CO. LTD.

214/17

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## CONTENTS.

### VOLUME I.

	rage.
The Physiology and Pathology of Micturition	1
The Obstructive Uropathy. Lesions Produced in the	
Urinary Tract by Obstructions to the Pelvis,	
Ureter, Bladder and Urethra	17
Urogenital Infections and Infestations: General	84
" " " " : Tuberculosis	278
" " " Syphilis,	
Mycoses, and Parasitic Disease	335
Urolithiasis	368
Benign Hypertrophy of the Prostate	417
Neoplasms of the Urogenital Tract:	
Kidney and Ureter	501
Bladder	538
Urethra	605
Prostate and Seminal Vessels	613
Testis and Other Scrotal Contents	671
Penis and Scrotum	698
	The Physiology and Pathology of Micturition The Obstructive Uropathy. Lesions Produced in the Urinary Tract by Obstructions to the Pelvis, Ureter, Bladder and Urethra Urogenital Infections and Infestations: General """"""""""""""""""""""""""""""""""""

#### VOLUME II.

IX	Malformations and Abnormalities of the Urogenital				
	Tract	1			
X	Traumatism.and Foreign Bodies	137			
XT	Ulcerative Lesions of the External Genitalia				
XTT	Diagnostic Significance of Special Urologic Symptoms				
XTTT	Examination of the Urologic Patient	213			
XTV	Operations on the Kidney	253			
TTX	" " Urotor	302			
XVT	" " Bladder	323			
XVII	" " Prostate	414			
XVTTT	" " " Seminal Vessels	513			
XTX	" " Scrotum and Scrotal Contents	535			
XX	" " Urethra	565			
XXT	" " Penis	643			
XXTT	Urology in Infancy and Childhood	655			
XXTTT	I Urology and Urologists in War				
VVTV	W Testicular and Prostatic Organotherany				
VVII	VV Study and Tarching of Ural agy				
VVV	brudy and reactifing or or or or of by				

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Mr. W. Arbuthnot Lane's Case of Supernumerary Testis. 59

214/19

#### XI.—A case of Supernumerary Testis. By W. ARBUTHNOT LANE, M.S. Read November 23, 1894.

C. G., aged 17, a black-haired, dark-skinned lad, well developed for his age, was admitted into Guy's Hospital under my care on August 15, 1894. He complained of a rounded lump in the right half of the scrotum, which was discovered in July by a medical board who examined him as a candidate for the naval service, and who refused him on that account. He was unable to say how long the swelling had existed, as he had never noticed it before. He desired to be relieved of it.

The lump he complained of was as large as a good-sized cherry, with a smooth surface, having apparently some con-nection with the cord by its posterior aspect. It had no connection with the right testicle, and could, by manipulation, be separated from it by an interval of about two and a half inches. Tractionin a downward direction on the testis, so as to render the spermatic cord as tense as possible, did not affect the range of mobility of the mass. Moderately firm pressure produced no pain, and severe pressure caused but slight discomfort. On being interrogated after the operation whether the feeling experienced from this pressure resembled that produced by compressing the normal testis, he said there was no similarity. This portion of his evidence was obviously not very reliable. The left testis was well developed and of full size, while the right one was considerably smaller. If the bulk of the right testis were increased by that of the ump, the whole would still be smaller than the left one. Both right and left testes were apparently perfectly normal a their structure.

The tumour was exposed by an incision into the right half of the scrotum. It was found to be attached to the testis by a fascial mesentery, which was about three inches in length, n whose upper free margin a small rounded cord could be ielt blending above with the spermatic cord. This proved, on subsequent examination, to be the vas and vessels of the supernumerary testis. The tumour was freely incised, and a capsule was turned back with some difficulty from its surface. It was then discovered that this capsule was the visceral

## MEDICAL LITERATURE.

#### 504

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#### Exostosis of the Orbit.

214/19

MAY S AND IS. 1926]

THE BRITISH MEDICAL JOURNAL

83

504. Exostosis of the Orbit. A. KNAPP (Arch. Ophthalmol., March, 1926, p. 128) describes a case of this condition in which he successfully removed the growth. It is important to distinguish between an encap-ulated osteoma, which is a tumour occurring in an accessory hasal cavity and secondarily extending into the orbit, and an exostosis, which is a circumscribed new bone formation arising from the surface of the orbit. The osteoma tends to grow towards the brain and may cause cerebral symptoms grow towards the brain, and may cause cerebral symptoms complicated by a sinusitis. An exostosis usually arises from the upper and inner orbital walls and extends outwards, disthe upper and inner orbital walls and extends outwards, dis-placing the eyeball. It grows slowly, and there is frequently a history of trauma; by reason of its growing outwards the prognosis for life is good. X rays afford the most definite method of diagnosis. Surgical operation is the only treat-ment. If the attachment is broad and hard it may be necessary to drill holes and saw the intervening parts, or to divide the normal bone around the attachment of the tumour.

#### Anomalous Duct of Lacrymal Gland.

505. Anomalous Duct of Lacrymal Gland. W. P. LING (Amer. Journ. Ophthalmol., January, 1926, p. 1) describes a case of anomalous duct of the lacrymal gland occurring in a Chinese boy. This boy was somewhat under-developed and showed some asymmetry of his face, the right side being smaller than the left. There were some peduncu-lated masses in front of the tragus of the right ear, and the lids of the right eye were separated at the outer canthus, the resulting intervening space being covered with skin. Immuc-diately external to the malformed external canthus there was an oblique opening through which tears dropped. The vision of both eyes was fully normal and the conjunctiva and cornea of the right eye were unaffected in any way. This anomalous duct was excised under local anaesthesia, a com-plete cure of the condition resulting. Microscopically the duct was found to be lined by stratified squamous epithelium.

## Obstetrics and Gynaecology.

#### 506 Vesicular Mole and Chorion-epithelioma

506. Vesicular Mole and Chorion-epithelioma. R. HUGUENIN (Bull. Soc. d'Obstét. et de Gynécol., No. 2, 1926, p. 109) discusses the questions whether there is any criterion of the malignity of a mole and whether a mole can lead to a fatal chorion-epithelioma. He points out that histologically there are two distinct types—the common form and the mole which is filled with large islets without stroma and ill defined cells with large irregular multilobular nuclei, having mitotic figures; this type appears to be definitely malignant. L. DEVRAIGNE and R. A. SUZOR (ibid., p. 111) report two cases of patients, aged respectively 32 and 29, in whom the histological findings were regarded as definitely malignant. In the first case hysterectomy was refused by the patient, and under local expectant treatment the menorrhagia ceased and the uterus returned to its normal size. Subsequent menstruation was regular and the general health remained excellent. In the second case curcting was followed by apparent recovery; but hysterectomy was subsequently necessary for cancer of the body of the uterus. BRINDEAU (bid., p. 113) thinks that the gravity of a mole has been greatly exaggerated. Many patients subsequently became prognosis on histological examination. Couvelaire has prognosis on histological examination. Mysterectomy was and menorrhagia, led to a diagnosis of chorion-epithelioma. Hysterectomy was performed, but the tumour did not extend beyond the mucosa and there was no ulceration or sign of any metastases. Though morphologically malignant, the beyond the mucosa and there was no ulceration or sign any metastases. Though morphologically malignant, t mole was benign in its clinical development. of the

#### 507,

#### Chronic Gonorrhoea in Women.

507. Chronic Gonorrhoea in Women. F. MONTUORO (*Riv. d'Ostet. e Ginecol. Prat.*, February, 1926, p. 110) points out that the diagnosis of chronic gonorrhoea in the female is difficult, yet of great importance. The history is often fallacious: frequently an acute attack is experienced without being recognized by the patient, for the urethra may escape infection, so that dysuria is lacking. The first symptom to attract attention may be leucorrhoea, but excessive vaginal discharge may pass unnoticed in a person habituated to a daily douche. Nevertheless, in every gynaeco-logical examination the presence of latent gonorrhoea should be borne in mind. It is important that micturition should not immediately precede the examination lest a purulent urethral discharge should escape observation. The important signs are : (1) the presence of such a discharge ; (2) redness around the urethral opening, possibly accompanied by small condylo-mata; (3) purulent secretion from Skene's tubules and Bar-tholin's glands ; (4) the presence of Sänger's macules near the 854 C

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## 60 Mr. W. Arbuthnot Lane's Case of Supernumerary Testis.

layer of the tunica vaginalis with the tunica albuginea, and that the organ resembled exactly a small testis in structure, in that it possessed a body, tunica vaginalis, epididymis, and vas. The other mass, which had been regarded as the normal testis on the same side, was accordingly turned out through the incision, and its structure carefully examined. It proved to possess all the components of a normal testis. It was replaced in the scrotum, and the supernumerary organ, which was too much mutilated to be of any use, was removed.

Fra. 2.

Represents diagrammatically the apparent size and relations of the two testes to one another, the dotted lines indicating the parietal layer of the tunica vaginalis of each.

was oval, slightly lobulated, about  $\frac{7}{8}$  inch long by  $\frac{3}{4}$ -inch broad. It possessed a tunica vaginalis. The epididymis was situated at the back part of the testis, and was about  $\frac{3}{16}$  inch thick. The vas was cut through close to the tail of the epididymis. The sections made through the body showed a structure radiating from the mediastinum. The spermatic tubules were readily teased out. Microscopical sections showed well-formed tubules with spermatogenesis proceeding."

The following is the report of the Surgical Registrar, Mr. Bellingham Smith, on the tumour :—" When seen the organ had been placed in strong spirit, and had had both layers of the tunica vaginalis peeled off it. The body of the testis

This condition of supernumerary testis is, as far as 1 know, one of extreme rarity. The relatively smaller size of the right testis supports the view that the third organ is developmentally a subdivision of it in the same manner that is observed occasionally in the case of the kidney. 508.

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openings of Bartholin's ducts; (5) the association of some or all of these signs with the presence of adnexal inflammation. Microscopical detection of gonocccci will clinch the dia-gnosis, but their absence in smears is far from conclusive. Montuoro points out that minor operative interventions in the genital organs of patients suffering from chronic gonor rhoea which has not been recognized are very apt to be followed by acute and serious pelvic inflammatory conditions which may entail prolonged illness and necessitate very careful treatment.

#### Chorea Gravidarum.

508. Chorea Gravidarum. K. v. LEHOCZKY-SEMMELWEIS (Zentralbl. f. Gynäk., March 6th, 1926, p. 608) states that the prognosis of chorea in pregnancy is considerably worse than that of chorea minor, the mortality being from 17 to 25 per cent. Its origin has been described to a pregnancy toxaemia, to reflex nervous influences, and, owing to its not infrequent association with polyarthritis and endocarditis, to infection. This last view is supported by the necropsy findings reported by Schuster-namely, recent endocarditis with thrombi and haemorrhages in the central and frontal gyrus. In this case *Staphylococcus pyogenes aureus* had been found in the blood before death. A case recorded by the author is taken as supporting the infective rather than the toxic origin of chorea of pregnancy. The patient, a 2-para aged 23, suffered in the seventh month of pregnancy from severe chorea in association with fever and polyarthritis; she died two days after induction of labour, and the necropsy showed well marked perivascular infiltra-tion (chiefly with lymphocytes and plasma cells) in the corpus striatum, optic thalamus, and substantia nigra, as well as striatum, optic thalamus, and substantia nigra, as well as degenerative changes in the putamen and globus pallidus, with considerable proliferation there of the neuroglia.

#### Treatment of Carcinoma of Cervix. 509.

H. H. BOWING (*Amer. Journ. Obstet. and Gynecol.*, March, 1926, p. 400) states that the combination of surgery, radium, and x rays in the treatment of carcinoma of the cervix is 1926, p. 400) states that the combination of strigery, faithin, and x rays in the treatment of carcinoma of the cervix is usually very effective provided that the disease is recognized sufficiently early, since at least six or eight weeks are required for the tissues to respond effectively to treatment by radium. The response to treatment is subject to individual variations, and the correct dosage can therefore only be established by experiments. He thinks that radium should be applied by the broken or fractional method rather than by the use of the destructive single dose, since the former enables the treatment to be modified according to the patient's response. With the patient in the knee-chest position and the employment of a Sims speculum and direct illumination, a silver tube applicator, containing 50 mg. of radium element, is inserted into the substance of the tumour, 50 mg. of or into the cervical and uterine canal, and allowed to remain or into the cervical and uterine canal, and allowed to remain in position for from fourteen to twenty hours. The treat-ments are given about twice a week for from three to six weeks, the aim being to employ about a total of 3,000 mg, hours of radium for each 2.5 cm. depth of involved tissue. These radium treatments may be supplemented by x-ray treatments, using high voltage, with copper and aluminium fituation over the aptendor peterior and latendor encoder treatments, using high voltage, with copper and aluminium filtration over the anterior, posterior, and lateral areas, one area being exposed each day until all have been treated. Bowing classifies cases into five groups, according to the location and extent of the disease. In the first group are cases with early or operable lesions in the cervix, and in the second group border-line cases with the disease limited to its vaginal surface. The third group contains the inoperable vaginal surface. The third group contains the inoperable cases with the disease involving the vaginal walls, broad ligaments, and lymphatic glands, with some degree of fixation, and the fourth group includes recurrences. The fifth group is made up of cases in which previous treatment was incom-plete, the disease being modified but not eradicated. The therapeutic procedures adopted vary in the different groups.

510. Basal Metabolism during Pregnancy. GARIPUY, LASSALLE, and SENDRAIL (*Gynécol. et Obstét.*, 1926, xiii, 3, p. 172) remark that the augmentation of basal meta-bolism which is well known to occur during pregnancy, attaining a maximum of about 35 per cent. towards the thirty-eighth week, has been frequently explained as due to increased activity of the thyroid gland. That it is in reality due to influences from the foetus is suggested, however, by its notable augmentation in multiple pregnancy and by its return to normal after death of the foetus in the uterus. The latter view is supported by their observations on fifteen pregnant patients showing no clinical signs of increased thyroid activity. In these the oculo-cardiac reflex were four ts showing no clinical signs of increased In these the oculo-cardiac reflex was almost thyroid activity. invariably of normal type. Little or no acceleration of the pulse occurred after intramuscular injection of 1 mg, of adrenaline, and slowing of the pulse after the intramuscular injection of 1 c.cm. of pituitary extract was exceptional. 854 D

214/20

## LONDON SCHOOL OF TROPICAL MEDICINE.

#### Annual Dinner.

The annual dinner of the London School of Tropical Medicine was held at Prince's Restaurant on October 24th. Dr. F. M. Sandwith was in the chair, and among those present were Mr. Austen Chamberlain, Lord Milner, Mr. Percival Nairne, Sir Charles Pardey Lukis, Sir J. West Ridgeway, Sir John Anderson, Surgeon-General A. W. May, Sir William Bennett, General Sir Reginald Talbot, Sir John Bradford, Colonel Sir William Leishman, Professor R. T. Hewlett, Sir Havelock Charles, Surgeon-General Sir A. M. Branfoot, Mr. J. Cantlie, Sir F. Lovell, Sir E. W. Birch, Major Bakhle, and Mr. P. J. Michelli. During the evening Sir Patrick Manson was presented with two portaits of himself, which were unveiled by Mr. Austen Chamberlain.

Mr. Austen Chamberlain, in proposing the toast of the school of tropical medicine, said that it was primarily on the ground of his father's connection with the school that he accepted the chairmanship of the committee, but that was not the only The study of tropical medicine in the last reason. 20 or 25 years had made giant advances, and in those advances Englishmen had borne a leading part. We, the possessors of the greatest tropical and subtropical Empire in the world, had special obligations in this matter alike to the subject races of whose well-being we were the guardians and to the young men of our own race, who, leaving perhaps easier and certainly safer paths at home, went out carrying with them our honour, doing our work, spreading our civilisation and increasing our reputation. He had felt that it was a matter of national honour and pride that in so beneficent a movement our countrymen, who had taken so large a part in its initiation, should stand in the forefront in regard to the new learning which was being acquired. Those were the reasons which led him to accept the position. They set out to obtain a sum of £100,000. They had not got it, but they had obtained £70,000 odd. They desired, first, to make a not very large but an absolutely necessary extension of the buildings of the school. To that they had devoted £15,000. The second object was to provide a fund for re-search, and they had been able to carry out that ob-ject through the kindness of Sir William Bennett in allocating to it Lord Wandsworth's legacy of  $\pounds 10,000$ . The third object was to obtain a moderate endowment of the school which would prevent its being always hampered by lack of funds. For that purpose there had been allocated a sum which would produce an annual income to the school of about £1,400, and before the fund absolutetly closed, either as an addition to that sum or for one of the other purposes, there would be at least another  $\pounds400$  a year available. The last of the objects was one for which he felt very great sympathy, but one of some delicacy. He had felt that some provision should be made for men who returned from the 'ropics suffering perhaps from a tropical disease-men with means sufficient to secure ordinary medical treatment, but insufficient to secure that special knowledge which was confined to a very few-and he was glad to say that through the co-operation of the Seamen's Hospital they had been enabled to make arrangements, not on a large scale, but of a kind which he hoped would be welcome, involving no feeling of humiliation and securing the best treatment. Great as had been the advance which tropical medicine had made in the last few years they had but scratched the soil. The discoveries which had been made were not final and conclusive. Each one opened new vistas of new possibilities and they were changing our whole mental attitude towards problems of tropical medicine, health, settlement, and development.

The Chairman said that Mr. Chamberlain had told them that part of the scheme of endowment was the establishment of special beds for special individuals. and he was glad to add that one of the wards was in future to bear the name of the Chamberlain ward. Thanks to the help they had received their school was now in a fairly flourishing condition. They had at present the largest class of students the school had ever had, and there was the largest number of resident students.

The presentation of the portaits to Sir Patrick Manson was made on behalf of the subscribers by Mr. James Cantlie and Dr. W. T. Prout, as repre senting the London and Liverpool Schools.

## VACCINOTHERAPY IN TYPHOID FEVER.

An interesting discussion on this subject took place at the Société Médicine des Hopitaux on October 17th. Dr. M. P. E. Weil stated that he had treated 14 children suffering from typhoid fever of moderate or severe form by means of Vincent's vaccine. The injections were given from the third to the tenth day of the disease, the daily dose being .25, .5, and 1 c.c. Then after an interval of one day 1.5 c.c. and, finally, 2 c.c. were given to children over five years of age. Below this age the initial dose was 1-8th of a c.c., going up to 1 c.c. or 1.5 c.c. All the cases were cured in a period of one or two weeks. The disease was completely transformed in its appearance, its duration, and its gravity. There were no relapses and no complications. Cases with enlarged spleens and intestinal hæmorrhage were treated by this method. The local and general reactions were insignificant. Dr. Josué stated that all the cases of typhoid he had treated by vaccination, whether children or adults, had shown a marked improvement in consequence, and the duration of the disease had always been shortened. Dr. Vincent said that up to the present time he had treated 34 cases of typhoid by anti-typhoid bacillary extracts. In nearly every case the temperature fell rapidly, and there was a great improvement in the general symptoms, the disease being considerably shortened in duration. He found that the effect of the vaccine was slightly less marked in adults than in children. He advised giving the injections in the morning, when the temperature was at its lowest. He also said that the treatment was most effectual when given during the first week of the disease; though even after this time and up to the fourteenth day the effect was beneficial. He advised that injections should not be given if the spleen was very enlarged, as vaccine treatment in 95 per cent. of adult cases led to swelling of the spleen; he had also noticed enlargement of the liver and gall bladder. Dr. Grenet cited a case of relapse with very alarming symptoms, in which he gave a dose of vaccine which cured the patient in forty-eight hours. Other cases of late treatment were mentioned which were cured by this method.

## DIAGNOSIS OF TUBERCULOSIS OF THE KIDNEYS.

## By Dr. Floyd E. Keene & Dr. John L. Laird.

#### Paper Read Before the Philadelphia Pathological Society.

It is only within comparatively recent years that tuberculosis of the kidney has become recognised as a distinct pathological entity amenable to treatment offering excellent chances for cure. While formerly looked upon as merely a terminal manifestation of a general tuberculous infection or as a rare disease difficult to diagnose, modern methods of examination, together with an accurate knowledge of its mode of infection, pathology, and clinical course, have proved quite the reverse to be true.

Without going into a discussion of the possible avenues of invasion, we can say that it is now a generally accepted fact that the tubercle bacilli reach the kidney by way of the blood stream, and that this infection is primarily unilateral in the great majority of cases. Probably because of the intimate vascular connection a specific infection of the opposite kidney originates more frequently from its sister organ than from any other focus in the body. The course of the disease is progressive, passing from bad to worse, and, according to Israel, there is no authentic case on record which has been cured by other than surgical measures.

While primarily tuberculous cystitis must be considered a pathological rarity, the bladder is commonly the seat of disease secondary to a renal infection. In the presence of a tuberculous cystitis, with its changes promoting incomplete evacuation as well as stenosis of the orifice of the sound ureter, an ascending infection of the second kidney, with the ureter as the avenue of entry, is likely to follow, as the experimental work of both Albarran and Baumgarten has demonstrated. Starting as a single or multiple focus of infection the further progress of the disease may produce changes altering not only the pathological but the clinial picture as well. Excluding miliary tuberculosis, which is merely the local manifestation of a general miliary tuberculosis, four types may be differentiated. Following an eruption of tubercles scattered more or less diffusely throughout the kidney, there may be little or no tendency to caseation, but rather to connective-tissue proliferation, transforming the kidney into a dense, irregular mass, at times impossible to differentiate from a neoplasm. Should areas of softening be present they frequently are surrounded by firm fibrous tissue impregnated with lime salts. The fibrous as well as the fatty capsule participates in this general tissue proliferation. A second type much rarer than the others is characterised by ulceration of the renal papillæ, so-called tuberculous papillitis which was first described by Israel, and due, in his opinion, to the passage of the bacilli through the tubules of the kidney, lodging at the papillæ, where they exert their destructive action. The type most commonly encountered is that presenting one or more cavities at the junction of the cortex and medulla, and not infrequently located at one or the other poles. These cavities vary in size, and may or may not communicate with the pelvis of the kidney. There is generally a chronic interstitial nephritis affecting the remainder of the renal parenchyma. In all these types, especially during the earlier stages of development, the kidney may present no gross enlargement; on the contrary, when extensive interstitial changes with fibrosis are present the kidney may be smaller than normal. It is important to remember that the enlarged kidney may be the healthy one, the increase being due to compensatory hypertrophy incident to the added work which it must assume when the function of the opposite side is seriously impaired. The terminal stage of these various forms is seen in the tuberculous pyonephrosis, with almost or quite complete destruction of the renal parenchyma: a mixed infection may be engrafted on the tuberculous, transforming the kidney into an enormous pus sac. The ureter and bladder likewise participate in the tuberculous process, the infection being secondary to the primary renal focus, and of urogenic origin in most instances. Primary tuberculosis of the bladder is so rarely seen that its demonstration in the female sex means almost invariably that we have to deal with a primary focus in one or both kidneys. Changes in the ureter may be entirely absent, but, as a rule, some evidences of the tuberculous infection are to be found. These may consist merely of discrete tubercles scattered here and there along the mucous membrane, or, in cases of longer standing, there may be extensive thickening of the ureteral walls, with ulceration, connective-tissue proliferation, and contraction, forming one or more strictures which may completely occlude the ureter, resulting in the closed pyonephrosis. While this is but a cursory review of the pathology of tuberculosis of the kidney it represents the chief manifestations found clinically.

LABORATORY METHOD.—Until the last few years the laboratory diagnosis of renal tuberculosis has depended upon the intraperitoneal or subcutaneous method of inoculation of rabbits or guineapigs. These methods consume about six weeks time or the time required for general tuberculosis to develop in the inoculated animals. To save this valuable time Bloch, in 1907, advocated the inguinal method of inoculation, which requires only ten days for a positive diagnosis. Much has already been written upon this subject, but the advantage of the Bloch method as a time-saver over the old method, and the fact that the older, slower method is still quite generally used, especially in America, were thought sufficient reasons for touching upon it once more in this comparative study.

The technique is as follows: A twenty-four hour specimen of urine is collected from the suspected case in a large sterile bottle, without the addition of a preservative. About 10 c.c. of urine from the

lower portion of the specimen are placed into each of two centrifuge tubes and centrifugalised for from two to four hours, dependent upon the speed of the centrifuge, when the supernatant urine may be poured off, leaving the sediment in the bottom of the tubes.

From the sediment in one of the tubes slide smears are made, which are then fixed, stained and examined microscopically for pus, blood, and bacteria, especially acid-fast bacilli. (Gabbett's method of staining the tubercle bacilli was employed in this work.) Pus is nearly always present in the urine in renal tuberculosis, varying greatly in amount, not only in the various stages of the disease, but also from time to time even in the late stages. This pus has, moreover, often a characteristic appearance both macroscopically and microscopically. The pus in tuberculous urine is gravish and granular, giving the urine when held to the light a ground-glass appearance in contrast to the soft yellowish appearance given by the pus in other conditions. The presence of blood, although occasional in renal tuberculosis, is more indicative of other pathological conditions of the genito-urinary tract. Acid-fast bacilli are nearly always present in the sediment in renal tuberculosis, but are frequently seen in the nontuberculous conditions. The differentiation of the tubercle bacillus from the other acid-fast organisms, in spite of unceasing efforts at differential staining, is microscopically impossible. Although here as macroscopically the appearance of the pus and the bacilli is sufficiently characteristic to arouse a suspicion which will afterward be proven a surety in a large percentage of cases. In contrast to the more or less discrete leucocytes comprising the pus seen in non-tuberculous genito-urinary affections, there are present large clumps of degenerated leucocytes, about the periphery of which will be found the typical slender, slightly curved, beaded rods, arranged in semiparallel groups, and giving one the impression that these organisms had a distinct part in bringing about the degeneration, whereas the other acid-fast organisms appear to have been accidentally dropped into a field of pus cells. The final diagnosis, therefore, must always depend upon animal inoculation.

For this purpose a suspension of the sediment in the second tube is prepared by shaking with 5 c.c. of sterile water. Two healthy, normal guinea-pigs are inoculated. The inguinal glands of the pigs are first slightly injured and thus rendered more susceptible to the attack of the tubercle bacilli by pressing and rolling them between the forefinger and the thumb for a few moments prior to the inoculation.  $2\frac{1}{2}$  c.c. of the prepared suspension, unheated, are then injected into each of the two pigs, subcutaneously, in the inguinal region directly below the glands. Pressure is again applied for a short time and repeated on the two days following the injection.

Ten days after the inoculation one of the two pigs is chloroformed and the inguinal glands on the injected side removed. These may be either sectioned, stained, and examined for tubercle bacilli, or, more simply and quite as reliable, finely macerated and pressed out between two microscopic slides, and fixed, stained and examined immediately.

In the majority of positive cases the microscopic examination of the inguinal glands results in the discovery of the tubercle bacilli in a few minutes. In some cases, however, in which the tubercle bacilli have been probably few in number or of low virulence the resultant inguinal involvement is so slight that the bacilli may escape detection by a cursory examination, and therefore a thorough search of every portion of the inguinal tissue should be made before a negative diagnosis is given.

In order to control the Bloch method of inoculation the second pig was allowed to live the required six weeks and then examined for general tuberculosis.

STATISTIC	TABLE.		
	Positive.	Negative.	Doubtful.
Clinical diagnosis	. 22	29	7
Bloch method	. 17	40	1
Subcutaneous method	. 17	40	1
Total. 58 cases. Positive	by labo	oratory n	nethods,
77 3 per	cent	·	

There were 58 cases of suspected renal tuberculosis examined by the combined clinical, Bloch, and Twenty-two subcutaneous laboratory methods. cases were proven, seven by operation and 15 by subsequent clinical course, to have tuberculosis of the genito-urinary tract; 29 were proven, three by operation and 26 by subsequent clinical course, to be nontuberculous; seven cases were still clinically doubtful. By the Bloch method of inoculation 17 cases were positive, 40 negative, and one doubtful, due to the death of the pig. By the subcutaneous method 17 were positive, 40 negative, and one doubtful, due to the same cause. In the clinically proven cases of tuberculosis, therefore, 77.3 per cent. were positive by both laboratory methods. The seven clinically doubtful cases gave negative results by both methods. Of the clinically proven negative cases all but one gave negative results, and this was positive by both the Bloch and subcutaneous methods. This case was brought to operation on account of the positive laboratory findings; the apparently affected kidney was exposed and split, and showed, macroscopically, an interstitial nephritis and no evidence of tuberculous involvement. Two of the proven positive cases which gave negative laboratory results were closed cases, the ureter of the affected side being obstructed; one had advanced bilateral renal involvement, which shortly caused death; the other two were frank cases of unilateral renal tuberculosis. There were two clinically positive cases, each giving negative results by each of the two laboratory methods and positive by the other. Another positive case showed numerous tubercle bacilli in the inguinal glands of the pig at the expiration of ten days, and only one small focus of infection in the spleen of the other pig at the end of six weeks.

NOTE.—The Oppenheim method of hepatic inoculation was tried in a few instances resulting in every instance in the premature death of the pigs from septicæmia.

CONCLUSIONS.—1. The kidney is the primary site of disease in tuberculosis of the female urinary tract; as a rule the infection originates from a focus in some other organ and gains entrance to the kidney by way of the blood stream.

2. The pathology varies greatly in kind as well as in degree, but a definite type usually predominates, altering both the pathological and clinical pictures.

3. Subjective symptoms referable to the kidney disease are by no means characteristic; they are often entirely lacking, may be expressed by a dull, aching sensation in the lumbar region or by attacks of colic resembling calculus.

4. The most prominent symptoms are those referable to deranged bladder function; starting with painless polyuria, all degrees of dysuria are met, including the most intense strangury and even incontinence. These symptoms may be decidedly intermittent in their severity, with intervals of comparative comfort. A cystitis which does not readily yield to the usual appropriate measures should arouse the suspicion of renal tuberculosis.

5. Some degree of pyuria is the rule; hæmaturia the exception. Intermittent pyuria suggests tuberculosis of the kidney. Pyuria without demonstrable bacteria by smear or culture in a catheterised specimen is likewise suggestive. Albuminuria is usually present, but small in amount compared to the degree of renal involvement.

6. In the absence of mixed infection the temperature is normal or shows only a slight evening elevation; irregular fever with chills and sweats is evidence of a mixed infection or a more generally disseminated tuberculous process.

7. The palpatory findings are dependent upon the type and extent of the pathological changes. While enlargement of the diseased kidney is usually manifest, it is important to remember that compensatory hypertrophy of the kidney may lead to erroneous conclusions in determining the diseased organ. Thickening of the vaginal portion of the ureter is of value in diagnosis, but by no means characteristic of tuberculous infection.

8. The tuberculin reaction is of doubtful value; the subcutaneous injection should be employed and its results are significant only in the presence of increased kidney or bladder symptoms.

9. By far the most important agent in determining the diagnosis is the cystoscope, which in the majority of cases shows a picture so characteristic that the nature of the infection is at once recognised. Only by its use can we decide the extent of the disease as well as the condition of the opposite kidney as regards both its anatomical and functional integrity.

10. The diagnosis of renal tuberculosis should be made in every suspected case by the combined clinical and laboratory examination.

11. The Bloch method of inoculation of guineapigs should be used, because it is equal in reliability to the older method, and the diagnosis may be made in at least 77.3 per cent. of cases in ten days compared to six weeks by the subcutaneous or intraperitoneal methods, which should also be used as controls.

12. A positive laboratory result by either method determines the diagnosis of tuberculosis of the genito-urinary tract; of renal tuberculosis in the females, the exact focus in the male to be determined by additional clinical and laboratory means.

13. A single negative laboratory result, regardless of thoroughness of examination, does not determine an absolute negative diagnosis of renal tuberculosis, as the manifestation of this disease is essentially intermittent. Negative results obtained in three successive weekly examinations should, however, bear considerable weight in the diagnosis.

## ETIOLOGY AND DISTRIBUTION OF PUERPERAL SEPSIS.

## By GEORGE GEDDES, M.D., Heywood, Lancs.

#### (Continued from page 450.)

Everybody admits a close relationship between erysipelas and puerperal fever, whether from the clinical or the statistical standpoint. But in our opinion of the chain of evidence in favour of any common cause underlying this relationship has been weak on both the statistical and clinical sides. doubt whether there is any evidence of a case of puerperal fever being traced directly to a case of erysipelas, and, further, that one seldom finds the ordinary symptoms of erysipelas in cases of puerperal fever. I hope to shows by means of figures how the two diseases have come to be associated, and how the association may be explained. What is erysipelas? One may hazard the following definition, viz., an inflammation of the skin caused by a streptococcus.

Fehleisen isolated a coccus that bears his name, which he claims produces erysipelas and no other condition. On the other hand bacteriologists have been unable so far to distinguish between Fehleisen's coccus and the streptococci found in cases of puerperal fever. It would be presumption on my part to discuss whether Fehleisin's coccus is or is not identical with the streptococcus found associated with puerperal fever. The "British Medical Journal" reviewer, writing on this question in refer-ence to a statement in Dr. A. W. W. Lea's book on "Puerperal infection," suggests that although bac-teriologists are unable to distinguish between them the human body can do so, and points out that "Fehleisen's coccus always bred true." Notwith-standing this dictum it is difficult to ignore a commonsense view-borne out by clinical experienceof the probable explanation of those conflicting Is it not reasonable to suppose that the conviews. dition of the patient's blood at the time of a streptococcal invasion determines largely the form which the inflammatory process will assume, i.e., (1) it may remain localised and suppurate (abscess); (2) in-volve the lymphatics and glands (lymphangitis); (3) involve the subcutaneous tissue (cellulitis); (4) ervsipelas-or what appears clinically to be erysipelas supervenes; (5) the organisms enter the blood stream (septicæmia). Bacteriologists agree that the streptococci pyogenes differ in virulence according to cultures. What culture is more likely to vary in character than the blood serum of different individuals or the same individual at different times? There are conditions named susceptibility and idiosyncrasy in individuals. Nor will be denied thatbe it a coincidence or not-several members of a family have been victims of puerperal sepsis. Ts it assuming too much, therefore, to argue that provided a streptococcus gains access to the maternal passages it will depend largely upon its environment as what form of inflammatory process it will give rise?

If we accept this view we have an explanation of the various lesions just mentioned, and we can easily appreciate the nature of the following lesions, named Spiegelberg's classification (if we remember [Reprinted from the PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, 1923, Vol. XVII (Section of Comparative Medicine), pp. 3-14.]

With the author's compliments

214/23

## CRYPTORCHIDISM IN ANIMALS AND MAN.

By FREDERICK HOBDAY, C.M.G., F.R.C.V.S., F.R.S.E.

BEFORE commencing I should like to be allowed to say how very much I appreciate the honour of being asked to introduce the first discussion before this new Section of Comparative Medicine.

The subjects which may be brought forward before a Section of this kind are so varied and numerous that the reader of a paper may be legitimately excused if he is puzzled to know from which side to select his title. There are so many sides to comparative work, so many pathological conditions and surgical operations which have analogies, and so many others which have differences; for although the veterinarian may perform a similar operation on his patients as is done by the human surgeon upon man, it is often done with a totally different object.

I have chosen the subject of cryptorchidism partly because it is an abnormality which is as common in the domesticated animals as in man, if not commoner, and in this connexion I want us first to compare notes particularly on the hereditary aspect of the question; and, partly, because I have the experience of over thirty years in operating for the relief of such cases in animals.

The results of this trouble are looked at by the medical and veterinary practitioners from a totally different point of view, as a successful operation in veterinary practice always means an increased monetary value of the patient to its owner, whether that value is represented in the horse tribe by the pecuniary aspect on account of the resulting docility, or whether it is from a sentimental point of view, as in the cat and dog (in the former, to do away with the objectionable smell of the urine which always accompanies the male, or in the case of the dog to do away with his irritable temper or to prevent him wandering). Thirdly, because I had the promise of the attendance here this evening of several well-known surgeons who have made a special study of this abnormality in man, and I am hoping on that account that the discussion which will ensue will bring out many points of mutual interest. There is much in common in the subject of cryptorchidism in animals and man, but there are also some very interesting contrasts and variations. With the human surgeon it is a matter of importance that the testicle shall be saved if possible; with the veterinarian it is of much more importance that this offending organ should be removed; this being necessary in our patients on grounds of economy, safety (both to man and other animals), and practical utility.

*Heredity.*—Our first reason in pedigree animals concerns the question of heredity, for there is no condition with which we have to deal in veterinary surgery which is more inherited than that of the undescended testicle. The

#### Hobday: Cryptorchidism in Animals and Man

tendency for a horse with one testicle retained and one in the scrotum to produce progeny having similar defects is well recognized not only by the veterinary surgeon but by every intelligent breeder of pedigree stock; and it is well illustrated in districts where a cryptorchid stallion has been allowed to be used at stud. That the abnormality can be passed on through the female line is also well recognized, and a filly foal which has been got by a unilateral cryptorchid sire must always be an object of suspicion if put to the stud.



FIG. 1.—Abnormal organs of a monorchid horse, showing the scrotal testicle and the portion of the generative organs present on the other side beyond the fundus of the bladder. (1) Fundus of the bladder. (2) Fold of peritoneum uniting the vasa deferentia. (3) Vas deferens. (4) Bulbous portion of the vas deferens. (5) The vas deferens on this side was pervious as far as this point.

The same tendency is well recognized by dog breeders, and in examining a male dog for stud purposes the veterinary practitioner would always draw the careful attention of the prospective buyer of the risk he ran in using at stud a dog or cat whose testes were not both normally in the scrotum.

We all know full well the sequel which results to an animal on account of the removal of its testicles, how it becomes quieter in its habits with other

#### Section of Comparative Medicine

animals of its own species, and more docile and more amenable to the will of man, and the successful removal of the hidden testicles has created an opening for the specialist in veterinary surgery in a similar manner to the way in which these operations have given opportunities in human surgery.

We term the animal with the hidden testicle a cryptorchid just the same as you do, and it may be unilateral or double. We have, too, "monorchids" when one testicle is entirely anatomically missing, and occasionally one meets with an "anorchid" in which both testicles are anatomically absent. The agricultural community know an animal of this kind better under the name of "rig" or "ridgling," and the value of such a beast is so much deteriorated that it may even become entirely unsaleable, or, at any rate, its price, if the prospective purchaser discovers the defect, is less than one-half or one-third of its proper value. I have here specimens or sketches from actual specimens in which the condition of monorchidy and anorchidy are definitely manifested, and I have also photographs of cases of arrested development accompanied by cryptorchidism (figs. 1. 2). An animal with this defect is usually known to the farmer by the name of "Will Gill," and is often spoken of as an herma-



FIG. 2.—Abnormal genito-urinary organs of an anorchid colt. (1) Small masses of fat in the position of the testes. (2) Bladder. (3) Vesiculæ seminales.

phrodite, but although I have met with, and operated upon, some thirty of these cases they have always proved to be males and I have always found testes present either in the inguinal canal or in the abdomen. They have all been true cases of arrested development.

The diagrams which I now show on the screen are taken from Colin's "Veterinary Physiology," and illustrate well anatomically the position of the undescended testicle in the fœtus at various stages and explain some of the reasons why the condition of cryptorchidism may result. For example, the peritoneal attachment may be abnormally short or abnormally long at a certain period of fœtal life. With the former the result might be that the testicle would never descend from its position in the lumbar region, but become almost a fixture, or it might descend a little way but not sufficiently to reach the internal inguinal ring. If abnormally long it might not reach the internal inguinal ring just at the time when this aperture would be sufficiently relaxed to admit of its passage and it might not reach it at all but be pushed out of its place by some of the internal organs. The testicle itself may be abnormally large, being cystic or otherwise diseased, and the epididymis is frequently

# Hobday: Cryptorchidism in Animals and Man

found to be excessively large or mis-shapen. A short vas deferens or spermatic artery, too, may cause retention. The inguinal canal may be so narrow, or its entrance or external exit so small and abnormally contracted, just at the period when the testicle approaches, that this latter organ cannot gain admittance; or, if admitted, cannot pass through into the scrotal sac. The gubernaculum testis, by which the testicle is drawn through the canal towards the scrotum, may be paralysed so that its natural function as a guide is useless; and, lastly, there may be some abnormal contraction of the skin of the scrotum by which, although the testicle has reached the external inguinal ring or even passed through it, the organ is either tightly held there or forced under the skin of the prepuce, abdomen, or thigh.

Although very inadvisable to use at stud an animal which has only one testicle visible, it is well known that such an animal can procreate his species, but when the testes are definitely in the abdomen such an animal is always sterile; at any rate, up to the present, I have never been able to find a case otherwise. When examined microscopically after removal it is not rare to find spermatozoa in testicles which have remained in the lower part of the inguinal canal, but in those found in the upper part and in those taken from the abdomen itself this is very exceptional. In fourteen instances Professor McFadyean microscopically examined and reported upon testes which I had personally taken from the abdomen, and spermatozoa were discoverable twice. In eleven taken from the inguinal canal five contained spermatozoa; three of these were in the extreme upper portion of the canal and all were beyond dispute in such a position that they could be termed "inguinal" testicles. They were quite out of sight even when the patient was chloroformed and cast on its back. This point is worth drawing attention to, and it has been commented upon by Sir John Bland-Sutton in a chapter which he very kindly added to a little book which I brought out on this subject some years ago. He states that

'in this book the author furnishes evidence that in horses testes retained in the abdomen or inguinal canal contain spermatozoa. In man this is rarely the case. After careful observations extending over many years I only once found spermatozoa in an undescended testis." Fertility, however, depends upon many things, including the number and state of maturity of the spermatozoa. The actual presence, therefore, of a few spermatozoa in the semen does not necessarily imply power of propagating species. In the horse in particular, it is always a wise plan to convert the animal into a gelding on account of the treacherous disposition which may come on at any time and which is usually an accompaniment of the cryptorchid. He is not only treacherous and uncertain in temper but he is almost invariably a continual nuisance to his owner, endeavouring on every possible occasion to mount any four-footed animal which comes within his range. It is impossible to turn him out to grass as he will never stop in one field, and one never knows when his antics will cause an accident either to himself or to some other animal. For this reason, therefore, it is necessary to perform the operation of castration, and this is briefly described in the following way :

I use the horse for my illustration because this is the animal on which we are called upon to operate most frequently for cryptorchidism. The patient is fasted for about twenty-four hours before the time of operating, water being allowed in limited quantity until some five or six hours prior to the actual event. Not having quite the sterilizing facilities of the human operating theatre we select a good straw bed or as clean a place as possible in a grass field, and our patient is cast and secured by the aid of a rope, chloroform being then

#### Section of Comparative Medicine

administered. The skin is prepared by being cleansed with petrol and painted with tincture of iodine or iodized chloroform. Here I would like to mention that for the past twenty years I have hardly ever washed the skin of an animal before opening the abdomen and I have no cause to regret omitting this procedure, and I speak from an experience of more than 4,000 laparotomies.

A shallow incision about 4 or 5 in. long is made through the skin almost directly over the inguinal canal, care being taken not to injure any of the large inguinal vessels which lie immediately underneath. The inguinal veins are often so intensely varicosed that the inexperienced operator has been known to mistake them for testicles and to cause hæmorrhage which may even be fatal. Once the skin is cut through the tissues are pulled apart and the remainder of the operation of finding the testicle is done by the fingers, without again having recourse to the knife. The hand is then introduced with the fingers in the shape of a wedge and carefully rotated past the large veins into the inguinal canal. If the testicle is present it is grasped and withdrawn, being removed with the écraseur. Sometimes the epididymis alone is in the canal, and the body of the testicle is in the abdomen and cannot be withdrawn without penetrating the wall of the latter. In such a case, if moderate traction is insufficient, the better plan is to enter the abdomen. On several occasions in cryptorchid horses I have found the distance between these two to be as long as 5 or 6 in., and frequently it has been necessary to use the écraseur twice, first to remove the body of the testicle through the abdominal wound, and secondly to remove the epididymis by way of the inguinal canal. Inexperienced operators have on numerous occasions removed the epididymis alone thinking that this represented the abnormal cryptorchid testicle, and the result has been that in a few months the horse has again become as troublesome as ever. I must admit faults in this direction in years gone by myself and the following instance is typical as an illustration. In July, 1899, when operating on a cryptorchid horse I removed the epididymis only, finding it at the extreme top of the inguinal canal exterior to the abdomen. The colt appeared quite cured of his troublesome habits for about six months, and then became as bad as ever. In the spring of 1901 the animal became quite unmanageable and dangerous, and a further operation was decided upon. On June 15 that year the abdomen was entered and a full-sized flabby testicle, minus the epididymis, was extracted. Recovery was uneventful and the colt became perfectly tractable and quiet. If the testicle is not found in the canal the abdomen is entered through the abdominal muscle, which is penetrated by the aid of the finger nail. Sufficient space is made at first to admit the fore and middlefingers only, with which search is made for the missing testicle. If found it is withdrawn. If unsuccessful the whole hand is introduced and a careful search made. The anatomical guides, if difficulty is experienced, are the spermatic artery or the vas deferens, as illustrated by the illustrations on the epidiascope taken from Sir John McFadyean's "Anatomy of the Horse." Once the testicle is found and withdrawn it is removed by means of an écraseur or emasculator. In consistency an abdominal testicle is very flabby as compared with those found in the scrotum.

In the dog and cat the site for the operation is in the median line, and as a general rule the testes are readily found floating loose among the intestines. In the bull, pig, dog and cat it is not uncommon to find a misplaced testicle subcutaneously some little distance away from the inguinal ring, a condition which is rarely, if ever, found in the horse. In the horse the position in which the missing testicle is found, if not in the inguinal canal, is usually just within the

# Hobday: Cryptorchidism in Animals and Man

wall of the abdomen, a short distance from the internal inguinal ring. It may be floating loose amongst the intestines, and it may be close up under the loins.

Abnormalities .--- The cryptorchid operator must always be on the look-out



FIG. 3.—A typical dermoid from the abdominal testicle of a horse. For this I am indebted to Professors Williams and Taylor, M.R.C.V.S., formerly of the Edinburgh Veterinary College.

for abnormalities, and it is for analogies in these that I particularly ask my confrères engaged in human medicine to speak. In the horse we have a most wonderful variety both in size and characteristics, and this applies not only to the older animals but to the two-year-old or even the yearling colt. Some

#### Section of Comparative Medicine

of the specimens I have here to-night have been taken from quite young animals, one especially which I obtained last week, and which Sir Arthur Keith and Professor Shattock have kindly examined—a cystic dermoid containing both hair and bone was taken from the abdomen of a cart colt only 12 months old (fig. 3). These abnormalities vary from the size of a walnut to the size of an ordinary Rugby football, and contain such foreign bodies as worms, hair, cartilage, osseous or dental structures, and various kinds of tumour tissue. They may be very cystic or very hard and cirrhotic. They may be entirely degenerated and adherent to the peritoneum or to some abdominal organ. One



FIG. 4.—Molar teeth (in various stages of development) removed from a dentigerous cyst taken from a cryptorchid horse's abdominal testicle by Mr. Inglis, F.R.C.V.S. On the left is seen the curious misshapen testicle itself.

For this illustration and description I am indebted to Professors Williams and Taylor, M.R.C.V.S. (Veterinary Journal, 1901).

case has been recorded in which the retained tumour was 79 cm. in length, 69 cm. in breadth, and the whole testicle weighed 100 lb. In the dentigerous cyst depicted on the epidiascope the testicle was  $6\frac{1}{2}$  in. in length, there was gland tissue in the centre and a dermoid cyst at either extremity. In the anterior portion there were plates of bone and cartilage, and in the centre of the cavity there was a roundish mass about the size of an orange containing several teeth in various stages of development. One in particular was an almost

## Hobday: Cryptorchidism in Animals and Man

perfect molar, being  $2\frac{1}{2}$  in. in length and grooved in the usual way. Six of the other pieces were distinctly recognizable as molar teeth, microscopical examination showing that the three usual constituents, enamel, dentine, and cementum, entered into their composition. The posterior extremity of the testicle contained a cyst having a wall chiefly composed of bone and cartilage. Inside this cavity were two smaller ones containing a coil of hair, black in colour, and mixed with the débris usually found in these cases. True dermoid cysts are as common as those of the dentigerous variety, and in the one which I now show you there was found when incised five separate cavities, four of which contained hair, in colour black, brown, and grey,



FIG. 5.—Embryoma of the testicle. (A) true testicular tissue; (B) tumour tissue; (C) cyst.

and some of them measured 7 in. in length. In the centre of the whole mass there was an irregular bony plate, and the rest appeared to be fibrous tissue (fig. 4).

Cystic testicles have usually to be reduced in size before they can be withdrawn. This can generally be done with the finger nail, the contents escaping into the abdominal cavity, or a trocar or hollow needle with a rubber tube attached may be used. Dewar and Anderson have reported a case in which a cystic testicle removed from the abdomen of a two-year-old horse weighed 3 lb. 2 oz., and when emptied weighed only 5 oz. 1 dr. It measured over 18 in.

## Section of Comparative Medicine

in diameter one way and over 16 in. the other. I myself have met with one which was quite as large as an ordinary Rugby football, and which I was unable to rupture as it kept slipping away from me. It had a cord about 18 in. in length, and this I pulled into view in the form of a loop, severing it with my écraseur and allowing the balloon-shaped body to remain in the abdomen. It was impossible to remove it without making an enormous hole, and this procedure I have adopted on several occasions under similar conditions.

Of the various kinds of tumour tissue, I have had personal experience of sarcoma, embryoma, fibroma, and lipoma, the microscopical opinion being given by experts in every case. The lipoma was exceptionally interesting on



FIG. 6.—Cystic testicle from the abdomen of a horse. (A) testicular tissue; (B, B) cysts; (C) epididymis.

account of its rarity, as I understand from Professor Shattock that it was the first of its kind which had ever been recorded, and that it has never yet been seen in man. One half of the specimen is in the Royal College of Surgeons Museum, and the other half is here to-day.

The next three illustrations on the epidiascope are typically illustrative of some of the abnormalities met with in the horse by the cryptorchid operator. For the pathological examination and description I am indebted to Sir John Bland-Sutton.

Fig. 5 shows a cystic embryoma removed from a shire colt 3 years of age

#### 10 Hobday: Cryptorchidism in Animals and Man

The left testicle was in the scrotum and weighed  $10^{\frac{1}{2}}$  oz., the right one in the abdomen weighing 25 oz. The latter was as large as a cocoanut. The bulk of the tumour consists of a large cavity filled with fluid, and on the floor there is an embryoma replacing the paradidymis. The same body (A) lying on the wall of the cyst represents the body of the testicle, B is made up of embryonic tissue containing secreting glands, tracks of bone and cartilage. A cystic testicular embryoma of this nature is stated by Sir John Bland-Sutton to be a rarity.

Fig. 6 shows a cystic testicle removed from a shire colt 13 months old. The left testicle was in the inguinal canal and the right in the abdomen. The latter was cystic and weighed  $2\frac{1}{2}$  lb. after the fluid had been removed. The body of the testis is as large as a turkey's egg and contains three cysts filled with yellow fluid separated by narrow strands of tissue containing seminiferous tubules. This has nothing in common with the condition known



FIG. 7.-Abdominal testicle laid open and showing specimen of Strongylus edentatus, (From a sketch made at the time by Mr. Santy, M.R.C.V.S.)

as general cystic disease of the testes in man, for in the latter the disease arises in the paradidymis between the body of the testes and epididymis, and although the secreting tissue of the testicle is compressed by the tumour

The third one was from a bay shire colt 2 years old. The right testicle was in the abdomen and weighed  $1\frac{1}{2}$  lb. Microscopically the tumour contained the mixed elements of an embryoma.

Another foreign body which is frequently found in the testicle of the cryptorchid horse is the worm Strongylus edentatus. It may be in the envelopes of the testicle or it may be in the tissue itself, and I have a specimen here to-night showing the latter condition (fig. 7). In the human subject I understand that living acari, Histiogaster spermatagus, even to the number of 800, have been found in the contents of a cyst of the testicle.

I have dealt principally until now with cryptorchidism in the horse and

#### Section of Comparative Medicine

shall only briefly allude to this condition in the other domesticated animals, as, except in the case of the dog, it is not a condition which can be said to be very commonly met with. We do, however, get it in the bull, when the abdominal site of incision for its removal is usually made in the flank. Similarly in the ram, as illustrated in the pictures which you have before you. The pig, too, is opened in the flank, much in the same manner as when operating on the female for ovariotomy. Of the dog, through the kindness of Sir John Bland-Sutton, I am able to show you a most peculiar condition of torsion of the cord of a retained testicle.



FIG. 8.—Torsion of the cord in a canine cryptorchid testicle (Sir John Bland-Sutton).

The question of cryptorchidism in man I have purposely barely touched upon as I know that it is best left in the hands of Mr, McAdam Eccles, who will open the discussion. I read in text-books of human surgery that almost every variety of neoplasm may occur in the human testicle but they are not very common. This you see is somewhat in contradiction to what we find in the horse. I read also that the benign connective tissue tumours (lipoma, fibroma, chondroma and osteoma) are seldom encountered. Sarcomata are fairly common, occurring in children and early adult life: more frequently in undescended testicles than in those normally placed, and generally of the

# Hobday: Cryptorchidism in Animals and Man

round-celled or spindle-celled variety. I understand that a large proportion of the tumours of the testicle are carcinomata. Dentigerous cysts are not at all infrequently met with in the ovaries of women, but they are comparatively rare in the testicles of man. The directly opposite condition exists in the domesticated animals, for experience teaches us that dermoids and dentigerous cysts are comparatively common in horses, whilst I have yet to see for the first time this condition in the ovary of the mare, and I speak from an experience of over 1,200 cryptorchid cases in the horse alone and nearly 500 ovariotomies performed on vicious mares. I do not attempt to explain this but I draw particular attention to this fact as a point for discussion, and I again especially emphasize the hereditary tendency of cryptorchidism in animals; as I understand that, although I read that about one in every 500 men has his testicles misplaced, the question of it being hereditary as far as man is concerned is not generally accepted.

The illustrations are taken from the author's "Castration and Ovariotomy of Animals," published by W. & A. K. Johnston, Edinburgh.

John Bale, Sons and Danielsson, Ltd., 83-91, Great Titchfield Street, London, W.T.

P.J. J. See from the Alpster that - my Ridfman is still living - though not in practice. He qualified in 1877

#### 531. Elephantiasis Yulyae.

J. A. VAN DONGEN (Nederl. Tijdschr. v. Geneesk., March 27th. 1926, p. 1293), who records an illustrative case in a Dutch girl, aged 13, states that elephantiasis valvae, which is frequent in tropical countries, is extremely rare in Europe. It is an affection which occupies an intermediate position between an infection and a new growth. In some cases the surface is smooth (elephantiasis glabra), and in others, as in van Dongen's patient, it is irregular and nodular (elephantiasis tuberosa). In some the growth is of firm consistence, and in others, as in van Dongen's case, soft. The surface may be affected by suppuration, rhagades, or fissures discharging lymph, or show vesicles filled with lymph, as in the present case. The growth may reach a considerable size. On histological examination oedema of the subcutaneous tissue is usually found as well as dilated lymphatics, with or without lymphangitis or perilymphangitis. Evidence of infection may be found in the subcutaneous tissue in the form of infiltration of leucocytes. The epidermis may be thickened or thinned or even absent altogether. Giant cells and plasma

#### T MEDICAL LITERATURE.

THE BRITISH

cells may be present. Elephantiasis vulvae is almost confined to adults, so that van Dongen's case is a remarkable exception. Traina and Marconi have also reported an example in a child. The cause of the condition is not always the same. Sometimes elephantiasis vulvae is due to a disturbance of the circulation of blood or lymph caused by scars, thrombosis, or enlargement of the inguinal lymphatic glands. In the tropics the condition is due to obstruction of the lymphatics by Filaria bancrofti. Some writers, such as Tchlenov and Veit, attribute the elephantiasis to syphilis, whereas Forgue and Massabuan incriminate tuberculosis. In van Dongen's case both these causes could be excluded. The lesion was probably caused by friction of the clothing giving rise to an epithelial defect which served as a portal of entry for infection. Complete recovery followed amputation of the labia.

Pathology.

#### MALIGNANT DISEASE OF TESTIS.

214/24

vessels and veins, which lead from the testis, so that general dissemination occurs early.

Of the 18 cases, who died with definite glandular involvement, all except one had an abdominal tumour within 12 months of the operation, and, in most of the cases, it was evident within six months. Kocher states that glandular enlargement can be detected within 6 to 18 months of the appearance of the scrotal swelling, but this, of course, gives no real help in the prognosis, as glandular involvement must have taken place long before a tumour could be detected. It is probable that most of the 18 cases, mentioned above, had secondary deposits in the glands before the operation.

*Treatment.*—The treatment of malignant disease of the testis is removal of the organ, as soon as the diagnosis is made.

This should be done, even if there is evidence of secondary enlargement of the lumbar glands, as the patient will certainly be rid of a source of inconvenience, and the danger of the growth fungating will be avoided.

It is true that, in the series o cases quoted, no patient so far as could be ascertained, lived longer than one year after involvement of the lumbar glands, and, in the majority of cases, death took place much sooner, but in only three cases was there local recurrence, and death from internal growth is preferable to a similar death, combined with a fungating mass in the scrotum.

Operation is contra-indicated, however, in cases of advanced disease in which there is a large lumbar swelling, or evidence of secondary infection of other organs, as death will soon close the scene, and it is useless to expose the patient to the danger and trouble of an operation.

Removal, when the cord is infiltrated, will also be useless, as the growth will fungate through the wound, and there may be serious difficulty in stopping the hæmorrhage at the time of the operation.

In the case of malignant disease of the testis of infants, it is useless to operate when there is enlargement of the lumbar glands, as death is so rapid that no benefit can result. If the diagnosis is not absolutely certain, an exploratory

incision should first be made, and the diagnosis confirmed before removal.

The modern operation for glandular carcinoma is the removal of the primary growth, the next set of lymphatic glands, and all the fascia containing the intervening lymphatics. As the cases described above show, the spread of the infection, in malignant disease of the testis, is nearly always along the lymph stream, and it would be most desirable, in all cases, to remove the lymphatic glands as well as the primary growth.

The first chain of glands, met with by the stream of lymph coming from the testis, is situated on either side of the aorta from its bifurcation to the level of the renal arteries, whilst the venous return empties into the renal vein on the left side, and the vena cava on the right. To remove the lymphatic glands, therefore, the abdomen must be opened, and careful dissection of the abdominal aorta made, avoiding the vena cava, the sympathetic plexus, the inferior mesenteric artery and vein, and other important structures.

In addition to removing the lymph glands and lymphatics, it would also be desirable to remove a portion of the spermatic vein, in order to prevent spread of the growth by the blood stream. The question to be decided is whether this can be done with safety to the patient, for, at the present time, the chance of recurrence in the lumbar region is very great, and, when recurrence has occurred clinically, it would be practically impossible to dissect off the malignant mass from the important structures in its neighbourhood.

An attempt to answer this question was made by Roberts, who reports a case in the *Annals of Surgery for* 1902. His patient had had the testicle removed for malignant disease, and had had a recurrence in the scar. An attempt was made to remove the local recurrence, and the lumbar lymph glands. The operation was performed, and the glands removed, but the patient developed symptoms of intestinal obstruction, the wound suppurated, and a fæcal fistula formed. An attempt was made to close this, but about two months after the first operation, the patient died of peritonitis. There was already a local recurrence before the patient died, and the operation removed glands, in which were found secondary deposits.

#### MALIGNANT DISEASE OF TESTIS.

The patient was fat, and the operation presented many difficulties.

Roberts, in his article, recommends the following operation:—As the first step, he would open the abdomen in the median line, remove all the fascial tissue round the aorta from the bifurcation to the renal vessels, and also excise two inches of the spermatic vein on the diseased side. He would then close the abdomen, and, at a subsequent operation, remove the inguinal lymph glands, the spermatic cord, the testicle, and the lateral half of the scrotum.

He admits the difficulty of finding and excising the spermatic vein, and his solitary case of removal of the glands, in 1902, proved fatal.

In view of the modern treatment of cancer, it must be admitted that this operation is desirable, but the writer is not in a position to express views as to its likelihood of success. Desperate diseases, however, require drastic treatment, and that this operation is anatomically possible is certain. If it is rejected, the treatment resolves itself into removal of the affected testis.

The incision should be carried well into the groin, and the cord divided at the internal ring, so that as much as possible of it is removed.

The layers of the abdominal wall should be sutured, as in radical cure for hernia, in order to prevent prolapse of the abdominal contents through the scar.

In the case of malignant growth arising in the retained testis, an attempt should be made to remove it, and in one of the cases quoted above, the patient was well two years and nine months after the operation. While the testis is being removed, care should be taken to ascertain if the cavity of the tunica vaginalis communicates with the general peritoneal cavity. If it does so, the aperture must be closed with a suture, and, after removal of the tunour, the abdominal wall repaired in a manner similar to a radical cure for hernia.

In the case of an abdominal tumour, the operation is similar to that for removal of any intra-abdominal growth, and presents no peculiarity. The cases nearly all die from recurrence.

#### THE PRACTITIONER.

For permission to publish the account of these cases, I have to thank the Medical Council of the London Hospital.

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214/25

# FURTHER OBSERVATIONS ON THE SPECIFIC ACTION OF TESTOGAN AND THELYGAN

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Third Communication

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Nowadays sexual science, like the science of life itself whose chief basis it is, exists under the influence of the internal secretions, of a sexual chemistry reaching out from the endocrine system, and whose normal development dominates the growth, development, individuality and procreation of man and vertebrates; whereas its disturbances (attention to which I was one of the first to refer to twelve years ago, 1906), must be regarded as the ultimate cause of sexual disorders of a constitutional nature. Even then, for example, long before the epoch making experiments of Eugen Steinach, I recognized the nature of homosexuality as a change in, and disharmony of the sexual hormones, that is, of the hormones of the sexual system which determine sexual individuality. Seven years later Tandler and Grosz evolved the formula that "the secondary sexual characters owe their origin and development most particularly to the harmonious reciprocal action of the glands with internal secretion." As a further growth and experimental development of this thought C. Hart<sup>1</sup> has shown the far-reaching dependence of ontogenesis and phylogenesis of animals on the endocrine organs as well as the significance of the latter for the development of human races. His experiments with Leo Adler on the endocrine glands undertaken on tadpoles showed as their most important result the internal correlation of the individual glands of internal secretion. Any change in a definite endocrine gland was immediately followed, according to the experiments of Hart and Adler, by a change in the remaining glands of the endocrine There is thus a strict functional interdependence and a system. constant reciprocal interchange. In this way the proposition I expressed

<sup>1</sup>Hart, C.: Ueber die Beziehungen zwischen endocrinem System und Konstitution, Berl. klin. Wochenschr., 1917, no. 45, 1077-1080.

in my first communication has been completely confirmed, namely, that in the development of sexual individuality not only is it the sex glands in the narrow sense which take part, but also the other glands supplying internal secretions, chiefly the thyroid, the thymus, the pineal gland, the hypophysis, the adrenal. All these are concerned primarily in the development of the so-called secondary sexual characteristics and it is their subsequent continuous reciprocity that determines in the highest degree the physiologic as well as the psychic appearances of sexuality. In this connection our concept of the sexual hormones2 must be enlarged. The term should not be limited to the internal secretion of the sex glands even though this secretion is naturally the most active and important. Furthermore it is clear from this mutual interdependence and reciprocity between the various portions of the endocrine system, what is very important for the theoretical understanding and practical handling of impotence, namely, that transient or permanent sexual insufficiency is very often to be attributed to anomalies and abnormalities of the endocrine system in general and not to those of the sex glands alone. The sexual hormones may be regarded, according to C. L. Schleich<sup>3</sup> as springs of health which must be taken in proper proportions in order to exercise their beneficial power over the mental and sexual life. It is thus easy to understand the far-reaching efficacy of specific sexual hormone therapy, this being the only real causal therapy for sexual insufficiency, even in many of the cases formerly called "nervous" or "psychic" impotence. In these conditions the central nervous system is by no means the primary factor, but it is only secondarily influenced by the chemically active materials of the internal secretions. The normal chemical "erotization" of the central nervous system (to borrow a happy phrase of E. Steinach's) is absent in cases of psychic impotence. The permanent normal chemical erotization of the brain by the sexual hormones must be the end and aim of all treatment of sexual insufficiency. Organ therapy alone has this direct primary action, whereas all other so-called "aphrodisiacs" have only a secondary action in this direction. The best of these, Yohimbin, when given alone, has often indeed had an astonishing but only transient effect on the lower sexual centers, particularly the erection center, but it can never replace the slower but more certain action of opotherapy on sexual insufficiency, an action produced by its effect on the endocrine system.

<sup>&</sup>lt;sup>2</sup>The sexual hormones are the hormones of the sex glands and of the glands of internal secretion, particularly the thyroid and hypophysis.

<sup>&</sup>lt;sup>3</sup>C. L. Schleich, Vom Schaltwerk der Gedanken. Berlin, 1917, p. 251.

In the organ preparations "Testogan" and "Thelygan" which have been carefully prepared according to my directions for the past three years by the chemical house of Dr. Georg Henning, I combined the active and rapid action of Yohimbin with the slower but more permanent effect of opotherapy.<sup>4</sup> Our expectations for this combination have been fulfilled in the highest degree.

Although these preparations have lately been imitated in many quarters, a great many of my colleagues have assured me that they have never been able to observe with the imitations the same specific action shown by Testogan and Thelygan on the secondary sexual characteristics.

The recent report by Prof. Eugen Steinach and Dr. Robert Lichtenstern of a case of homosexuality in a soldier who had both testicles shot away and who was cured by the implantation of a testis from another man, throws new light on the following cases observed by other physicians and suggests the use of Testogan and Thelygan as important aids to surgery.

To the case previously reported of Surgeon-Major-General Mueller's (of Nuernberg), in which there was an "astonishing" development of the mammae after administration of Thelygan in a case of female infantilism, I can now add the following illustrative cases of theoretical and practical interest:

Dr. Magnus Hirschfeld writes the following concerning a 30-year-old man: "This was a case of marked feminism with strong androgynous impulses, especially in connection with the breasts. The patient, who had a typical masculine build, was obsessed with the desire to acquire feminine breasts. Formerly he had tried hard to be manly, but had failed. Since he had grown very unhappy over this he hit upon the idea of becoming feminized in accord with his psychic state, and a physician was found who administered Thelygan to him, given a long series of injections into the mammae. The result was striking, and there developed on both sides a distinct gynecomasty (female breasts). This condition persisted six months after the treatment was completed." Testogan treatment has been instituted in order to create the normal impulses in this patient.

Dr. Heinze, of Breslau, writes the following: "My oldest son

<sup>&</sup>lt;sup>4</sup>In 1915 we began making Thyreoidin-Testogan and Thyreoidin-Thelygan and to these we added also the extracts of other glands of internal secretion, especially the hypophysis.

matured between twelve and thirteen. My second son, however, showed distinct female characteristics at 15 years of age: wide hips, panniculus adiposus, enlarged breasts, and strikingly feminine features. Since I knew from study and experience that such figures lean readily to homosexuality, and since I suspected his behavior to his younger brothers, I decided to give him Testogan in small doses—two tablets daily for a week, then rest for a week, and so on. The cure was complete after two boxes of 40 tablets each. Features, body form, bearing, deportment, all took on the male type. His voice has changed, but despite increase in size, he had lost weight. However, this may be due to underfeeding due to the war."

Surgeon-Major Viktor Rosenfeld, of Vienna, had a similar experience in a case of homo- or better bi-sexuality: "In the following few lines I should like to report a case that I treated with Testogan. The patient is an officer of 36 years. As a youth he masturbated. At 24 he over-exerted himself mentally and physically. He had been below par for the past 12 years. During this period perverse thoughts of a homo-sexual nature made their appearance. The patient complained of languor and very seldom succeeded in completing the sexual act. He was treated by about ten physicians who tried to improve the nervous condition by vibration, cold baths, and Yohimbin hydrochloride. Testogan was not tried. After 40 injections of 1 c.c. of Testogan and the administration of 80 tablets in the space of three months, the general condition and appearance were much improved and there was a renewed desire for work. There were almost daily erections, and libido was increased. During the treatment the patient experienced five or six pollutions, which he had never had before. The perverse thoughts disappeared completely; there was a marked growth of hair on the pubes, abdomen and chest; the neurasthenic symptoms disappeared; the testes increased in size and firmness, and during a period of three to four months coitus was practiced five or six times."

In connection with these cases, the proposal of Dr. Knabe, of Magdeburg, to use Thelygan for its effect on the secondary sexual characteristics, that is to increase the feminine and reduce the masculine, is worthy of consideration. We believe that an investigation should be made of the possibility of overcoming the obstinate hypertrichosis of the climacteric by the use of large doses of Thelygan.

Dr. Capanema succeeded in favorably influencing the deficiency symtoms after castration in a man. He injected ten ampules of Testogan subcutaneously into a patient who had both testicles removed for tuberculosis and who suffered severely as a result. Many of the deficiency symptoms disappeared and the insomnia gave way to restful slumber.

Personally, I have used Testogan with good results in three cases of congenital or traumatic atrophy as well as in a case of unilateral destruction of a testicle as a result of a gunshot wound. Not only were secondary disturbances improved, but sexual power was increased as well.

Amenorrhea, and at present the not uncommon war amenorrhea, has been improved by Thelygan, not only in my hands, but in those of my colleagues as well. Such troublesome deficiency symptoms as congestion, dyspepsia, nausea, and vomiting are promptly relieved. Dr. Franz Lehmann has lately confirmed<sup>5</sup> these favorable experiences with Thelygan.

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Dr. A. Landeker, gynecologist, of Berlin, writes (November, 1917):

"The future of therapeutics is based on the building up of our organ preparations through a further differentiation and rational strengthening of individual hormone action. These principles are put to good account in correct synergetic balance in the case of two organ preparations of the firm of Dr. Georg Henning, which have proven of great value in my own hands and in those of my colleagues. These preparations are known as Testogan and Thelygan.

"I have had especial opportunity to use the latter with excellent results in my gynecological practice. Thelygan has worked especially will in dystrophia adiposogenitalis, in genital hypoplasia, in sexual infantilism, in many forms of dysmenorrhea and amenorrhea, and particularly in that large group of nervous disorders which we look upon nowadays as vegetative neuroses associated with disturbances of endocrine equilibrium."

Thelygan had a marked effect in a case of menstrual icterus observed by Dr. Pirl, of Charlottenburg:

"A married woman of 30 years suffered from attacks of icterus and weakness after the menses. These gradually became more marked so that a fairly pronounced jaundice remained permanently. After two short administrations each of 40 tablets of Thelygan, the icterus disappeared entirely, as well as the general feeling of weakness and a troublesome chronic insomnia."

<sup>&</sup>lt;sup>5</sup>See discussion of Stickel's paper on war amenorrhea before the Berlin Gynecological Society, May 15, 1917, abstracted in Berl. klin. Wochenschr., 1917, no. 32, p. 785.

Testogan gave a very brilliant result in the case of a 36-year-old chemist on active service who suffered from atrophy of one testicle, oligo —and necrospermia, diminished libido and impotence and complete absence of feeling during orgasm. Except for the usual experiences of youth, the patient had been abstinent. At 16 he made the discovery that he lacked the impulses of normal men and in the course of time they did not develop. He writes under date of May 31, 1917:

"For this reason I experienced a feeling of disgust after intercourse and have thus been prevented from marrying. In the past 20 years my sexual power has become very poor. I assume that in my early experience I suffered some nervous damage. I do not know whether you know of a similar case. The physicians whom I previously consulted seemed helpless. Dr. L., of M., who treated me last, using electricity without effect, told me of Testogan and advised a trial. First, let me say that my genitals are normal, except for one testicle, which is quite infantile. The spermatic fluid, which I examined microscopically ten years ago and again just before the Testogan treatment, showed very few spermatozoa, only a few alive and these mostly with ruffs around their necks.

"I was able to take the Testogan cure pretty thoroughly here in the field. I have taken 120 tablets and 50 injections of 2 c.c. each. After seven weeks of treatment the infantile testicle began to swell and finally reached the normal size of the other one and has remained so. At the end of the cure I re-examined my spermatic fluid. It swarmed with spermatozoa. This and the increase in the testicle impressed my physician very considerably. My sexual power is also normal once more."

The success of Testogan treatment in a case of X-ray impotence in a West German specialist, concerning which I reported in my second communication (Med. Kl. 1916, No. 3), has received further confirmation. The doctor reports that the treatment always works promptly and lasts longer each time. "As soon as I notice," he writes, "that my strength diminishes, I repeat the treatment. In this way I can perform the act two or three times together without discomfort, and this despite my 57 years."

Last, but not least, Testogan is of specific value in many cases of general exhaustion neuroses, involving as they do the sexual system, in the all too unknown anemic impotence, and above all in war neurasthenia concerning the influence of which on sexual power Prof. Friedl Pick<sup>6</sup> has written at length. Dr. Winter, of Berlin, writes: "As a result of a brain wound received in action, I have had during two different months within the last two years, attacks of marked melancholy and depression. After the depression wore off I took after eating a single tablet of Testogan and rested. As a result of this medication I now feel extraordinarily fresh and full of capacity for work. The depression that has been coming on regularly in the autumn months has not yet been felt, and I hope to be spared it as a result of continued use of the tablets."

Not only this colleague but a great number of physicians and officers in active service have, in the course of time, reported the unusual specific action of Testogan in exhaustive neuroses of war veterans. In the future it would be of great value in connection with these war neuroses for me to get continued reports from my colleagues, concerning their experiences, both personal, and with other subjects.

I must still report a characteristic case that I observed in my own practice. The subject was a carpenter of 36 years, married, well-built, and strong-looking. The patient saw service during the first two years of the war and remained abstinent during this period. While on leave he made the embarrassing discovery that because of premature ejaculations, despite great desire, coitus was absolutely impossible for him. Much mental anguish and depression. He sought medical aid and went from one physician to another, to nature healers, and advertising quacks, spending a year in this way looking for a cure. After much persuasion I got him to take a Testogan cure—injections and tablets, in turn, with the usual intervals between. Now, three months later, he feels normal again and has regained the same sexual power as before the war. The patient was very hard to handle, as he had become prejudiced by the many useless treatments and very suspicious and even showed suicidal tendencies.

Finally, I should like to make a few practical remarks concerning the use of Testogan and Thelygan. In using organ preparations the physician must keep an eye on the tolerance of the individual patient and any idiosyncrasy that may be present, particularly on the part of the heart and kidneys. The physician must always realize that the administration or organ preparations, especially when they are combined with alkaloids,

"Friedl Pick, On Sexual Disorders in War, Wien. kl. Wochensch., 1917, no. 45.
is a therapy which demands his whole attention and his entire capacity for individualization, and should not be regarded as some indifferent preparation of which it is said: "Even if it does no good, it can do no harm." It is thus possible to use but small doses of Testogan and Thelygan and yet achieve valuable results. Sometimes, as a Winter's case, a single tablet after the noon meal for a short period gives results. I have obtained my best results with a combination of internal medication and subcutaneous injection (tablets, and injections simultaneously).

Additional literature on Testogan and Thelygan may be obtained by addressing the Sole Agents: Cavendish Chemical Corporation, 295 Pearl Street, New York, U. S. A.

> London Headquarters: CAVENDISH CHEMICAL CORPORATION Empire House, 175 Piccadilly, London, W. 1

6300 wrs a close study and the intimate knowledge of the Embry dop anatom, morphology and honology of the testis forms an Essential prelude to the investigation of the various and remarkable timours of this organ. At a very early period the genital and winners systems are so intimately connected that a gathe development two systems is called for. This development is not one of gradual propers; we are composited by successive saltatory developmented stages in These systems. Morphologically and Southtimery we consider three kidner periods - each having an sacretor organ adapted to its own depinite period. Tro-nephros - the first tubular structure & appear, som Disappears and has no functional bearing a human Embry ology. Meso. nephros - constitutes the Wolfpian body; to the inner of this appears a ridge and from the Epithelium covering this ridge the material, on the one hand, for the overy in the woman and, on the other hand, for the testis in the more is derwed. Meta-nephros - The permanent kidner Each succeeding nephros supplants its predecessor which, when no longer required, Degenerates and leaves traces of its constence Except the pronephio. In man the pronephros, occurring at a very early period, has only a short, incomplete and observe existence. Mothing pathological can be traced to any of its vestigual remains.

The metanephros becomes the permanent kidney, the becomes a part of the permanent reproductive appendix. This indicates the the impossibility of endeavouring to Dissociate the development of the reproductive system from the using system. Accordingly there is little wonder the many tumours and cysts ofthe reproductive gland thave term attributed, in Jormer years, to possible vestigial remains of these several involutionen phases White the pronephros, primarily situated in the cervical region of the embryo, is rapidly vanishing the mesonephros is formed along the posterior wall of the body-carity behind the peritoneum which by its own growth, it pushes powerd as a fold. This is the "trogental told which, except at its examial and candel ends, undergoes a longitudinal division into: -1. The Genital Fold 2. The Mesonephrie told. Candally the wrogenibal folds come together and pise; thus arises the genetal cord whereby the cavity of the primitive pelvis is divided into a dorsal and a ventral portion. at prist the upper edge of the genetal cord his at the level of the third lumber verteber but later at a lower level. This genital cord is formed throughout its whole length at once and with it further searce differences appear. In the Jemale a distinct "excavatio-vesicalis" is seen in front of the genetal cord but in the male the mesonephric folds, approaching each other in the middle live, mile with the wall of the bladder,

The avalage of the reproductive gland - the common sea gland or the indifferent reproductive gland - already present, now grows with the wrogenited fold and by protrusion results in a broad based fold being surrounded by Josse so That the fold becomes stalked; this stalk becomes twisted. In this way the asis is changed no longer to hie proster in a prostal plane but sequently. This stalk forms the stalk of the Sea gland and it's mesogenitale (mesorchium or meso ovaring) The wrogeoutal Jolds within which occur a series of wondrons and important processes lie originally parallel to the vertebral column, now become displaced by the appearance of the Suprarenal glands and are a porcing back is continued by the metanephroi, The overy and testis During the earlier stages and up to a certain period of their Development are alike because they are respectively formed from the same common or indifferent reproductive gland by the Emphasis of certain characteristics which ultimately produce The particular differences of the male and female gouad. The differentiation can be first Distinguished microscoprically in the fifth week but it is not until the third month (twelfth week) that the difference becomes apparent to the naked Euc. The last and perhaps, in connection with the ultimate position of the testis, the most important change in the wrogenetal fold is brought about by its connection with the lateral and later with the anterior abdomial wall at the third month There is no trace of an infiniel canel. From the fourth to the seventh month the testis his in the

iliae Jossa at the site of the piture internel abdoninal ring while the overy has fallen into its position behind the genital cord. During the seventh month the testis passes through along the track prepared for it Through the abdominal well. at the Eighth month the testis leaves the Ingrind Canal and lies at the external abdominal ring; it and is not until about or shortly after birth that The testis reaches the Scrotum Comparature positions: - In man and most manumals the testes are normally found within the berdtum; however this is not the invariable rule. In some manuals the testes are always Antra. abdommial - eg Eslephante & Seals In others, the testes become Extra-abdominal only during the season of second activity e.S. Insectivora - mole, shrew, hedgehof. Chiroptera - bats. Rodents - mice, rats, voles Squirels & rablits. In man the testis has been found at Every concernable stage in its transit from the lower edje of the genital ridge along the luncho-ilias track and we the infrinal canel to the Scrothing or any neighborring estra-abdorienel site. to years it has been advanced and is still taught that the rebained testis is more liable to maliquant disease. I would rether say that The undescended testis is more prequently the sea of a conjectal aberration which is responsible for non- or m'complete impration of the organ. Further teratomate are prove to Evidence meliphanez, accordingly The undescended testis, being prequently the seat of a

teratome, is the more prequently affected by melignener.

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lysts and Cystic Conditions. Summers of the testicle are very varied in their clinical features and difficult in Their pathogeny. In this country, it is a growing practice to castrali male animals at an early age so that those tumours of the testis which might at a later date, Endence malignency have become limited for their comparative pathological study eacept in the dog. nevershelers, this practice affords valuable material for comparative tersbology. The term febro-cystic Disease of the testis, which I ales back to an early period when the resemblance of a cystic condition in the testis to a cystic state in the kidney led to the assumption that the causation was similar, was applied by Curling to the condition previously known as the "hydatid testis" of bir astle Cosper. An attempt to classing tumours of the testis is beset, on all sides, with almost unsurmounbable difficulties which are in no way, lessened when we seek to subdivide the wide group of cystic conditions of the testis. Legion are the varieties of conditions collected under the old title of I fibro-cystic disease. Sometimes Even as large as a cocoancels with a wary contour a manipulation, the suspected aggregation of cysts is revealed by transfreener; at other times the density of The fibrows time or the intracystic Estravasations of blood obstruct the transmission of light. Macrosedpicent These fibrocystic tumous have long been known to contain hyaline cartilage. Eve classified these tumours as follows .-1. Cystie Fibrona - Cysts, Unstriped Muscle and Cartilege. 2. Cystic Mysome - Cysts, Fibrow Time and Mucus. 3. Cyster Sarcome - Cysts less in Eudence, Cartileje musele and fibrous tissue

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It may be more clear to speak of the constituents of these tumours as :-1. Dense fibrous tissue . Musele. Cartilage aux Bine & Mesoblestie, 2. Cysts lined with a Squamons cells - Spiblastie. to Columner cells - Appoblastie. The term has well served its purpose but today it is merely a name indicative of the Evolution of the pathology of the tumours of the testis and ponits out to the clinician that, when he is compould by a tumour of this character, there should be to him no specific difference between the unocent and maliquent cystic tumours of The testis . cystic as similar tumours occur in the testis of the male and in the overy of the Jemele the sources of such Jounations much, surely, be present in the common sea gland prior to sea differentiation. In connection with this statement it is interesting to point out that teratomate which are considered to occur more prequently in the human overy then in the human testis are found in the equine to prepanderate in fequency in the testis, Dermoid Tumours. The term dermoid has come to have two meanings which must be kept dortinet J Dermal origin - an inclusion: J Dermal contents - a teratoma. Let us not fait to keep closely before our Eyes the picture that the "inclusion theory" which bears the name of the illustrious pathologish Cohnheim was primarily Encologed to Explain the dermoits at

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the outer angle of the orbit is that this theory is applicable to dermoid cysts of branchiogenetic origin and affords an adequete captanetin of dermost of the Scrotum - scrotal raphe' - but in Dermonds within the tunica alluginee This cannot be upheld. Often a tumour of the testis containing hair, desginous substances and Even teeth has been looked upon as a dermoid of the bertum pushing ande the testis whereas the condition is a teratome pushing ande the particuless time of the testis. Dermonds in the different regions of the body occur at approximately the same Embryonic period and it is difficult to concerve of the melusion as coming from the Ectodern into the testis lying within the abdominal carty en route for its estra-abdonimel forition. Again these so-called dermonds of the testis are less rare in the organ which has reached the bertun than in the cryptorchid. Further the testis has not advanced for for upon its migration before the Jormation of the Secolum has not only been initialis but Even completed for its reception into its ultimate normal situation in men.

Seet - Toolong has the presence of test in a tumour been considered as Evidence of the dermoid: surely a tolt is more than Epidermel! at leash, it beloop to a tissue which is peenlier to the ceptelie pole of the Embrys. In many unshances such cetopie teett are partially Enveloped in a bong case. To me the presence of teeth is indicative of a termon not solely Epidermal hup also mesodermal i.e. a teratoma,

adamantinona.

The commistion of a series of

Equine teratomata of the testis reveals all monner of masses of dentigerous origin. Among these masses are to be found tumours of adamantine density, dernied from the enand organ and called adamstinoma. adamtinona. agan in terstometa which contain teeth and the clements of teeth arente almost Every possible variaty of cyst of the faw of dental origin occurs - a wide and remunerative fela for the dental pathologist's researches Cartilage. Done. Mueni Calcipication. No reference to cartilage as a component of testicular termony would be complete without mention of Paget. The interest aroused and the Discussion which followed upon the classical specimen described by Paget as malignant Enchandroma of the testis led, in later years to re-examinations by Hanthack and Pygg. Forlerbon, Micholson and many others. The presence of cartilage in tumours hes always been mistrusted; we find connected with its occurrence in tumours such diverse terms as !- Osteochondrome Myso-chardrome, Chardro-Sarcome, Chardro-caremone and Fibrocharto mysosareme - Inch a veritable teratome. Ossification and calcification are observed in many teratomate even to the Estent of forming an almost complete coprule and not injerquently a delicato This hardened time. This condition is in no way comparable to the calcification found in old hydrocale sacs, cystic termours of long standing or in tumours resulting from Estre-ulerine gerbations because the conditions above referred to seem in ter abomate remarked from very young aminals.

Seratomata Aistory - a search into the annals of medicine, Three hundred years ago, reveals the earliest observations on teratoma of the testis . As early as tissues were recognizable the finding of tissues or even organs, more or less developed, in parts of the body where they we not usually found, attracted attention. according to Velpean the Earliesh reference to such structures as cartilage, bone have ste in the testicle was made by Duverney in 1666; but the fish depuile and anthentic observations we one to It Donat who, in 1696, operated on a termour of the right testicle corresponding in size to a six-month Jetus. This created a great stir. On dissection this large mess was found to be composed of a dense plesky anterior portion pull of pluiet in which floated a bory sphere - the skull with two orbit-like carities containing black vericles - The distinct vessels were recognized in this men which in its other parts was full of porosities comparable It a sporfe. In 1835 Geoffren Saint-Hillaire took up the study of These timours in a truly secentific way. In 18 5.5. Vernenil described, in a complete way, a termon of the testicle with foctal remains; credit should here be given that he preseled the theory of Wilms (1896) and one might Even read into his work the trophoblastic ectodermal origin of Chorion - Opithelione Every succeeding year has brought an Ever-mexeasing number of observations; attention must here be especially drawn to the able and Estensive work begin by Wilms in 1896

They have the great collaboration of Sakaye Okhubo who arranged, in chronological over, all recorded cases and gave a resume of almost all that was know about the Evolution of this absorbing subjects

Pigmentation and Requests in Jumours of the Lestis The blood - arterial and benous - the wrine, the tile, the colour of the Skin of the have and of the vides in fact, the coloured plumage of birds and the Dappling of quadrupeds all moreale the normal presence of programments in mon and animals, When the skin of the negro is contrasted with that of the European it is found that in the deepers layers, there is a Jupment - melanin -; The Same prement chemically but different in quantity. In 185.5 Curling with that melanoris had been observed to the testiele in only a few ushances. The Morrich Hospital Museum once combanies a speenner of melanoris of the Testele. Writers During the pash porty years have plenied the occurrence of melanome of the testis but have recorded the rare occurrence of secondary melesteres of melanta melipson to in the testis.

The figures is the protect geting agge) These melancies, - or - or on pee today, - are the product of cell activity being elebrater in The Thelanoblasts and fiven over to the Chrometophones. These proprients When a small progranted rule takes upon itself an increased activity its spread is rapid, slarning symptoms appear and grave anaisty is aroused because a malignant melanome is converse as one ofthe most letter of termours.

Melanins may be excreted in the wrine colourless to be later demonstrated by a charged colour of The write. If this and the coal black meterteres - Sometimes all over the skin - may have led to The terror-stricken view of former surgeous. Even today the clinical teaching are unchanged and The laity speak of it as the Black Cancer.

Other prements to be found in the testis are harmondern and lipschemes. The presence of tile in a teratome is scular endence of the presence of hepetic tissue within the walls of the cysh. ( Cf Ly ho ).

Parthenogenesis It can be truly asserted that, in the study of teratomata, their pathogen, more then anything Else, has taked the sagarity of the pathologist. Many theories have been advanced but only two call for our consideration today, 1. The theory of parthenogenesis - This theory suggests that ter atomate of the owary are the results of abnormal prolipirative changes which occur is ove without fertilization : by impresse teratometer of the testis result from similar changes either in the Spermatozoa or in the primordial over which may be remain in the testis. 2. The blastomerie theory - This theory implies that teratometa are derived from (a) blastomeres which have not gone so far as pill differentiation or (b) fertilized polar bodres. Parthenogenesis, which is well known in insects, means the development of an organism from an unpetilized orum. In bees & fortilized orum becomes a queen bee a nonfertilizer orum a drone.

with and do Jushier user patholyied cosition an incomplete subry or Wattern is applicated textmates gots owny struct the covelly applicated textmates gots basis is if postherappens is auptor of the owner we are present to equally applicate particular of particularies to miller terms got textma secondary is the open of similar terms got textma stages i we after to just at along state to more the opposite to go a textma should to more abages i we after to just at along such aiden to oppose to go a textma should to more the proposed to go and along and miller the proposed to go the text along the proof of the proposed to go the proof of the text text and the proof of the Waldeyer primarily invoted partherogenesis to captari the production of territorial of the many and in 1891 Ripin published a uporous appeal in support of partherogenesis as the origin of an oversion dennix partherogenesis as the origin of an oversion dennix Bucause territorials occur with greater pressure, in the Unfertilized on parthenogenetically produce only one are. seargeans this derivation from the reproduction cell of these glands has been presented to us as obvious; the statement has been made that as there cells, under normal conditions, produce a complete andres, they Eary & apani if parthensperis is accepted in the huma orum and the analyse accepted as possible in the lists has are use to extend this view to one in the lists nech, palate, mediasticum the - Parthensperen was period by a similar degre of dwelpment for a similar degre of dwelpment at the time of Parthenogenesis is insuch takes place at the time of second naturity, is reproduction by parthenogenesis is the "para testicular", het um they have been intra testimoles, in assured as it was promble to punction of adults. By arrept . as long as terotomate were considered heres the 1

0 The occurrence of terescale is other part that the many and testis is a blow to the theory of question to smither of a purch bed and exclusively whereas the parther openetic off paring is of a Different age. I his ensearner & answer objections to the enor blestin analogues to a tun persherepretic theory Bard advanced his theory of Just sight, to explain teretimate give non and testis count coplain the origin of teretimate for removed from the genital glands especially in setuations where aberrant genital cells count Experimental endry dop & guis much suppose to the element of sippose times also being process of immense powers of sevelopments. This nosed-cell' is ruly analogous to a blantomere rame of as the carrier; here it is constances takis no such organ has even been make with in the Junesse a teratime may arise is a Superimerary owny or parthenofeneris so seductive at the part glance. Though testing them, Row reports the remarkable for g organogenesis and which hypothetically contains the branchial, mediastical or retro-sacral regime. the "notal cell" - a single complex resplastic mere underfrig Division -)) - & page 15. The theory of Joanthenogenesis appearing, at in such as a primer, Developmental ander such as a primer, Sussipurated ander by which the tumors can occur in very site atims , 6)

14. The Blastomerie Theory. after jertilization the orum divides with two Daughter-cells, These puther divide into four cell; again these cells divide into eight cell, the eight produce sisteen cells and so on with a continue - tim of the cleanage or segmentation-process until The morale blastodern is formed and leter, by the invagination of this morule, the gastrule stage is reached with its: -Outer layer - Ectodern or Epiblast. Inner layer - Endodern or Hypoblash. and between these layers yet derived from each ofthem a middle lager - Mesodern or Mesoblash In each successive stafe of division the power of development possessed by the cells is important when an capel seeking to captain the origin and formation of tumours. The fertilized orum is capable of giving rise to all the tissues of the boon - it is totipstent -. The primary segmentation spheres or blastomeres are similarly Endowed with This potentiality as is proven by the development of turns from one orum. - These blastomeres are likewise spoken of as totipotent because each can five rise to all the tismes cheracteristic of the adult organism - & later stages of segmentation the blastomere are still capable of producing many tissues but not complete and "perfect individuals. - These blastomeres are multipotent. at still later stages this power of the blastomeres is more rigidly limited to the formation of certain organs or parts of organs - in other words a gradually diminishing power frially results in the formation of one tissue only. - such cells or group of cells are termed unipotent. Here we may see the conferned track of Every termour, however complex or however simple.

If it is accepted that one blastomere can become independent at a certain stage in segmentation the the development of a mass of tissue of almost any degree of complexity must be acknowledged. This blastomere of independent growth may be attached to the Embryo become partly or completely surronded by the Embryo and so enclosed within its body. Material illustrating Every stage of attachment, melision and Enclosure of one body within another it so abundant that the preture ston seems completo. as teratomate contain derivatives of all these layers of the blastoderm - ceto; meso and endodern they may justly be considered to originate at a very Early period Embryonce stage from blastomeres. Five teratomata have been found in one organism therefore adami was not in full accord with this blastomeric theory, nevertheless he accepted the hypothesis That Embryord termours have their origin in a Special system of blastomeres, namely, those of the genievel group dedicated from the first to reproduction. This may be Reviticized as begging the question to sent a particular case - We are Jully aware of Twins triplets, quedruplets and even quiastlets. These have each ober several principal escender Experimental Embryology has given such result as justify our looking upon the inclusion of a primary blackomere as possible and that such an included blestomere can give rise to an Embryo with multiple tonnes and with an organization more on less advanced. These studies seen to give us the they to the very observe points in the pathogen of teratomate of the testis. Further it may be that, when meluded in the genital ridge - in the piture sea-gland -, a blastomere

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meets with conditions more favourable, than elsewhere, to its development; indeed, this probability is supported by the proved fact that times implanted reperimentally on the oward find conditions more favourable to development. Conclusions. - Teratoma is due to a developmental assomely during the early segmentation of the subject in whom it is ultimately discovered. Particular conditions connected with the particular developmental irregularity probably give rise to particular varieties of teratomete. at one end of the series we find double monsters which are probably due to feelindation into the same arin by two spermatozoa. The degree of complexity of a terationa will be proportional to the stage at which the blastodern was included : - The nearer the primary segmentation of the orren the less differentiated is the blastomere consequently the more complex will be the teratione whereas the firther away from the primery sequentation the simple. This tecture has in its essential the bearing upon the clinical and surgical aspect of termours of the testis as well as their profound pathogen. - Suffic it, then, for us to appreciate they the blastomeric theory comes within the Domain of esoperimental embry olog and teratology. From work alreed, done we are led to Espect parther revelations. As comparative embry dopy is complementary to and much precede Esperimental Embry ology so comparative teretology muse precede Esperimental terebologn. Malignancy & trequently a tumour has developed in the times of a terationa and grow to invaded its host: such termours may grow from only one type of time or from more than one as is indicated by such terms as myso-sarcoma, myso-chondro-carcinome Etc

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Many a teratoma does not present any of the characteristic of malignancy from its conjenited appearance to advanced afe - such instances form the variety of phrocystic testicle which does not reem? Yet the disquosis of a teratome with its long clinical existence much not be tooked upon as an earnest against malignancy. any suspected teratoma calls for early castration prior to any pair or any increase in size, Whythis alarining view? Any pain or increase in size Jollowing upon an injury, of paracenters yields a blood stanied pluid, beware lest the erroneous draguous of haemotiona or haematocele is made. The parasitie theory of cancer has today the larger number of adherents and has prompted research whole with an immense addition to nor knowledge but with much hope yet this theory hardly meets the question of malignency in teratomata. greent work by Gyre and Darmard hes predominated in the file of Experimental cancer investigation so that we are back to the old pelds of "the germ and the sort". This work may prove only to be a matter of metabolism of tumours. Neverthelers, whatever may come of it, this the work deserves the highest commendation because the Esperiments, in the clearest possible way have proved the hypothesis advanced and will therefore, finde in the piture those who are investigating cancer from the point of view of an afent and a me virus, The teratomata contain tissues derived from the three laver of the blastodern accordingly maliquency man arise in any vestige of spithelium forma form a Carcinone or in any time derived from the mesoder It for a sarcome or even from both concurrently. I hough it cannot be said that melignancy is one of The characteristics of a testimular teratoma

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menertheless we are justified in the opinion that there is in Every terstome a cancerous propensity. Merther can it to survised when the antenatally determined morbid lesin may or will make itself more endent by The appearance of a malignent trait. Any increase in size on the onset of pain heralds the advent of a new pathological factori-(1) infection (2) haemorrhage (2) rupture of some limiting membrane and epision of pluid or blood. (a initiation of a geoute. The malignance, commencing in the testis may be long confined by the dense timica Vaginalis, If any part of the tumour grows with great rapidity softened areas of wholly a partity broken down time may present the clinical features of a cyste. (horin - Spitheliona The hydatidiform mole and the condition of & chorion - Epitheliona in the female are today well-know as originating in the chorion-epithelium. This Epithelium is differentialed with two layers of about Equal thickness:-Trophoblash (a. Luner Layer or - Cytotrophoblast. Layer of Langhans Diplotrophoblest 6. Onter Layer on - Plasmalitrophoblash Syncytium Syncytistrophoblash On the outer surface of the Syncytium a delicate membrane with stiff hairlike processes - The Stereocilia is generally to be recognized. The function of the trophoblash is to open up the vascular channels of the uterine walls by the loosening action of its cells so as to obtain nourishment from the maternal blood for the growing Enbrus: moreover, its poeted origin is no longer doubles, The invading power of the synestium is mercased when its cells years over the boundary of normality into The Chorion epothelione as is Explained by the hermorrhages and metastases.

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These metastases are round nodules of variable size, deep-red in colour ( from haemorrhage) or ragged premention masses scattered, in abundance, through such argans as the lungs liver and brain. Marchand's work cleared away any pathogenetic difficulty by shering that the chorion-epitheliona in the female arises in the chorin-epithelium of the foetal ectoderm and that both its layers are involved in the Chorion-epithelionatous timours. When timours morpholofically identical with the chorion epithelione of the uterus are found to occur in the testicle we are forced to replace and, when Distelies her Dispeller, our amogeneet is mercased while purther investigation adds to an perplexity. Malignant Disease originating in the testis was, until regard comparatively recent years, looked upon as Sarcoma. Manthech, one for our pathologists in 1897 put forward that the report fronth of barcome of the testis as Eudence in favour of deciderome maliquem of the externs being a sarcome. The work of Schlagenberger followed five years leter How can tumours in which the essential characteristic is the prover presence of trophoblast inte cells of Langhans arise in the testis? From what part Te testicular teratoma can the trophoblest originate? The more careful the investigations carried out in Chorion - Epitheliometous tumours of the testis the more pequently are the presence of two and Even three layers of blastoderinic origne shern to exist. Often the metastases are the Elicidators of the teratometons nature of The growth; Chorion - Epithelion atous time alone may be Jound the other types having been crowded out or overshedowed by its intensiped front. Under there conditions chorion spithelions may be more prequent them is at mesent comocred

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5as the syncytim beloop to the Joetal cetodern so does the Chorin-Spitheliona found in theretonale and Jami the Ectodern which has now arrived the character of a + frophoblash. For verse ! The occurrence of in the male of a syncytium, derived from the Ectodermal layer of the trilaminas teratome, proves that under normal conditions in alters the synertium is of poetal argin. accordingly a + ferationa may be reparded as an imperfect foetus which has formed around itself foebal membranes - meanplete though met may be They are yet able to break out, spread into the times of the host and send metastases to other organs -What Debernines This malignance? When the Syncytical andage becomes Enclosed within the boundaries of the t deretome it is pusticles no its fronthe, pari parm, with the placente of its coneval host. So comprises to is not per lo develop until some attennated spot yrelds to the gradual lossening action of the synertial cells, go slowly increasing when ter at anothing premiere of

subden breach by a traume.

Such a This remarkable condition is no less remarkable than the regression which occasionally occurs at the termination of prequency by the complete Disappearance of depuite Shorin Spithelimete. This occurrence led to the speculation assumption then at the end of prequences There may be formed in the meternal blood a substance which possess the power to destroy those syneytial Elements which may remain in the Uterine wall or elsewhere. Schultzo and his disciples, #I working along these lines prepared a subbance called "Ayneytichysia . Further studies along such extremely interesting avenues of research may serve to throw light upon tumour-growth and tumour refression.

Thus freed the chorioire aulage carries out its peculiar powers, becomes a chorion- epithelione and widely disseminates metastases: or the trophoblest may invade the vascular channels of the Engulged blastomere So that the lines of growth may proceed along the Jush avenues of mutrition or via the haemorrhegie track consequent upon injury. Whatever the cause may be once the limiting force is impaired or overcome there is no cessetion to this progressively fatal unvasion by one of the most unrelenting types of cancerous growth. The bony easing or calciped capsules form a safe barrier and teretomete so Enveloped present their innocence or restrain their meliquancy for years on Even throughout the life of The unividual,

I was primed to p.21] Operation is the only primary measure, in an present state of Knowledge, to pursue - The Entent of The surgical procedure will vary according I the nature, size and position ofthe tumour but perative mecess will Depend upon its early and preventue aspects because Every teratione is a potential focus for meliquency and no surfen can discen what hidden beath trop his domant there within it. The discrepance in post-peretive results is fred Smeting the petient remains well for years his no other petients The condition is so melipsent that det ennes speedel no spilo f operation

Que. The most rapidly ground him . comisting of alls seen . And the the any Mie colegon wheel are aarted affector by Reducing

H. K Leure - Co htd. 21. The diagnosis will be based upon general lines, transillumination, X-rays and meision but above all upon a clinical acumen borne of a propound kundesfe of pathology and wide clinical Experience. Aron the rapioly growing character of meliquant termours of the testis I way the Employment of the radiin in massive doses. I have presented to you, in rapid sequence, tumous Its in the borne, canine, equine and human subjects - a vise field of comparature pathology and clinical surgery, The many problems spened up have taxed and will continue to tax the most Steilled Entry olyists and pathologists. In these days of the quest for the origin of cancer it is indeed disheartening to find so many of the termours of the reproductions gland are not only virulently malignant in character teretometors in origin but deeph embedded within the their common sea-gland at so early a date that our the formation we can eservise no control and over its their maturation we have only one drestic course - Castration - Even this in many instances is too late. If among the legion of hypotheses of the origin of cancer There limited my lecture to the confernatal aspect I trush that at least two important points will emanate. mistruster. 1. The early recognition that any confernital aberration is to be 2 Those who follow the present paths of cancer research, as well as Those in practice who rise on the waves of Jashim will at least reflect upon the philosophie reasoning of former masters of medicine.

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## PARTICULARS OF OPERATIONS FOR THEATRE.

214

Surgeon\_ Mr Howell Coans

Date\_ 30-1-19

Hour\_10 and

Surgeon's Assistant\_

Anæsthetist\_

	Numerical order of Cases.	NATURE OF OPERATION.	Name of Ward.
Zha	s horne a	Scar Linia Jacob Len Sprind ( ur arhennon)	Morley
	2nternet 2000	Suprapubic cycolotomy John hitte . & finning these	V Mary
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	4.	tanicor bein 1	V mary
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## FATHERS OF MEDICINE



## **PARACELUS**\* (A.D. 1493-1541)

The great rebel of the profession. Born at Einsiedeln in Switzerland, Aureolus Philippus Theophrastus Bombast von Hohenheim — "Paracelsus" is his own latinized form of Hohenheim — was the first to question the authority of Hipprocrates and Galen, and to attack the latter's dogmatic theories. He stood out boldly for independent study and the right of private judgment. Paracelsus' own theories were altogether too mystical and fantastic but he did lasting service to the advancement of medicine as a pioneer in chemistry and chemical therapeutics, and as a seeker for the active principles of drugs and the sworn enemy of polypharmacy and indiscriminate bloodletting.

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## FATHERS OF MEDICINE

#### **HIPPOCRATES**

#### (460-370 B.C.)

A Greek physician: one of the great figures of an age that also produced Sophocles, Aristophanes, Socrates, Plato. Author of a number of medical treatises, now known as the Hippocratic Collection, which together form an encyclopedia of medicine and surgery as practiced in his day. It is the method of Hippocrates: his rejection of superstition, his mental honesty, his scientific approach to diagnosis, his deep respect for his patients, and his high conception of the physician's calling that make him, by common consent, the father of scientific medicine.

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### FATHERS OF MEDICINE

APR

1944



#### AMBROISE PARÉ

(1510 - 1590)

The greatest surgeon of his time, who contributed something to almost every branch of his profession, especially that dealing with the treatment of gunshot wounds.

Trained in Paris at the Hôtel-Dieu, Paré began his surgical career as an army surgeon, later becoming Professor of Surgery at the College of St. Côme and surgeon to King Charles IX. Like Vesalius, Paré approached every problem with an open mind, accepting nothing on the sole grounds that it was approved dogma. His digest of the "Fabrica" in French popularized that great work and made it more widely accessible to surgeons.

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### FATHERS OF MEDICINE



#### DIOSCORIDES

Greek surgeon in the army of Nero (54-68 A.D.). Originator of the materia medica and sometimes referred to as the "Father of Therapeutics".

Dioscorides was the first to write on medical botany as an applied science and his works are the authoritative source on the materia medica of antiquity. Up to the beginning of the 17th century, the best writings on medical botany were still simple commentaries on his treatises, which are the historic source of much of our herbal therapy.

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Gurd, Ackman, Gerrie, and Pritchard— Annals of Surgery, Vol. 116, No. 5, November 1942.



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### FATHERS OF MEDICINE



#### **GALEN** (131-201 A. D.)

Greek physician; the most skilled practitioner of his time and founder of experimental physiology. His writings on the physiology of the nervous, respiratory and circulatory systems, however faulty in the light of later discoveries, were the only real knowledge until Harvey (1578-1657). His anatomical investigations were unrivalled in antiquity for their fullness and accuracy.

An unscientific dogmatism and a tendency to explain everything in terms of pure theory unfortunately limited the value of Galen's contribution to the progress of medical science.

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#### AVICENNA

#### (980-1036 A.D.)

Most celebrated Islamic physician of the 11th century and known as "Prince of Physicians". Said to have been the first to describe the preparation and properties of sulphuric acid and alcohol. His best known work, "The Canon", which was the text-book of physicians for several centuries, is a monumental attempt to codify the entire medical knowledge of the time and square its facts with the theories of Galen and Aristotle. Its unfortunate effect on the progress of medicine was to confirm physicians in the unscientific attitude of Galen that theoretical reasoning is better than first-hand investigation.

Prepared for the interest of the Canadian Medical Profession by Charles E. Grosst and Co. 1943-4 AS ADVERTISED IN THE CANADIAN MEDICAL ASSOCIATION JOURNAL

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CATALYTIC

THE ORIGINAL CREEK\*PREPARATION

for the Treatment of

ANAEMIA

#### **ADVANTAGES**:

#### SOLUBLE ELASTIC CAPSULES PREVENT OXIDATION:

The "Ferro-Catalytic" capsule — an impermeable but quickly soluble gelatin envelope which remains soft and easy to swallow - keeps the contents fresh and un-oxidized. This contrasts with ferrous carbonate pills, which, unless administered when fresh, become hard and resistant and progressively oxidize to the less effective ferric form.

11

#### NO CONTRA-INDICATIONS - NO UNTOWARD EFFECTS:

When properly preserved, as it is in the "Ferro-Catalytic" capsule, ferrous carbonate is the least irritating form of iron. Such toxic symptoms as low abdominal cramps, diarrhoea, nausea and vomiting therefore do not occur with "Ferro-Catalytic". Discoloration of the teeth, also, is avoided.

#### AVAILABLE IN A RANGE OF FORMULAE TO MEET THE PHYSICIANS' NEEDS:

See list on opposite page. Specimen package of formula of choice, with haemoglobin scale, will gladly be sent on receipt of request.

\* Charles E. Frosst & Co. areholders of the iron-coppe patent rights for Canada

### FATHERS OF MEDICINE

#### **VESALIUS** (A.D. 1514-1564)

Andreas Vesalius, the most commanding figure in European medicine after Galen and before Harvey, was born at Brussels, studied at Louvain and Paris, and became professor of surgery at Padua at the age of twenty-three! Before thirty he had effected a revolution in the science of anatomy.

Vesalius reaffirmed the method of Hippocrates

and the importance of first-hand investigation as a check on theoretical reasoning. His great work "De Humani Corporis Fabrica", 1543, the first complete and accurate anatomy, enlarged and corrected the work of Galen, which was based on the dissection of animals. It has been called "the greatest medical book ever written—from which modern medicine starts".

Prepared for the interest of the Canadian Medical Profession by Charles E. Grosst and Co. 1942-4 AS ADVERTISED IN THE CANADIAN MEDICAL ASSOCIATION JOURNAL

\* New Communication re-affirms value of

An oil-in-water stable emulsion containing 5% Sulfathiazole "Fosset"

in the treatment of:

INFECTED WOUNDS, ABSCESS CAVITIES, BURNS, CHRONIC ULCERS and SUPERFICIAL INFECTIONS.

as a dressing for

BURNS about the face, hands and points of flexion.

#### as a bacteriostatic packing in

INFECTIONS about the cervix and vagina.

#### as a non-adhesive bacteriostatic pack

in the VAGINA before and after operative procedures in the birth canal.

\* See opposite page for offer of reprints of this communication.

The Canadian Mark of Quality



Pharmaceuticals Since 1899



#### HERMANN BOERHAAVE

Born in Leyden, Holland, 1668. A remarkable man, whose fame was so universal that letters addressed to "Dr. Boerhaave, Europe" were delivered to him. Lecturer at the University of Leyden upon the theory and practice of medicine, upon botany and upon chemistry.

He introduced bedside teaching, and placed the microscope and Fahrenheit thermometer at the service of the clinic. His maxim, "simplex sigillum veri" (simplicity is the stamp of truth) "was never manifested in his treatment," says one of his critics, and "his prescriptions were less effective than his personal appearance." Yet, the kindly, dignified and unassuming personality of Boerhaave deserves recognition as well as his assiduous labours to observe carefully and interpret correctly the tangible evidences of disease. Died in 1738, and his home town, where he spent his entire life, erected a statue to his memory.

#### BOERHAAVE

#### Was a Unique Genius in Medicine



O HIM IS ATTRIBUTED the virtue that most of his contemporaries lacked-he never mixed his theories with his practice. His writings reveal that he at times believed in heroic measures of treatment. His therapy of constipation included large and repeated bleedings, "diluting and antiphlogistic

glysters" repeated several times a day; incessant hot drinks, and "fomentations of the like kind applied all over the belly and chiefly the application of live hot and sound animals, such as puppies or kittens".

The rationalization of medicine, as a result of pharmacological experiment and clinical observation, makes such drastic measures unnecessary to-day.

It is now a recognized fact that in atonic constipation, the stimulation of peristalsis is of paramount importance. To accomplish this, it is not sufficient to introduce bulk. In chronic constipation the bulk is there; its outward movement constitutes the problem.

Because it meets scientifically the requirements which have been found necessary for the re-establishment of the normal function of the colon, AGAROL BRAND COMPOUND, the original mineral oil emulsion with phenolphthalein, simplifies and improves the modern treatment of constipation.

The stimulation of peristalsis may not only be useless but actually harmful, unless the intestinal contents are sufficiently soft and pliable, so as not to offer abnormal resistance to the segmentation process of the intestine. To accomplish this purpose, a sufficient moisture must be present that is not absorbed in the colon. Unless the fæcal mass is soft and easily passed, injury may also result to the rectum, causing fissure, ulceration, and even incontinence in the final result.

The quantity of indigestible and unabsorbable liquid introduced into the digestive system should be as small as consistent with good results, so as not to interfere with gastric and intestinal function by coating the stomach and intestinal walls, thereby forming a barrier to digestion and absorption.

AGAROL BRAND COMPOUND, as the experience of those thousands who are prescribing it shows, is safe from these objections. The dosage is small (from two teaspoonfuls to one tablespoonful) and may soon be reduced to a teaspoonful as the intestinal stasis shows evidence of improvement. The mineral oil and water held in emulsified combination is just sufficient to prevent complete dessication of the intestinal contents, preserve their pliability and obviate the irritation of mucous membranes. Because of thorough intermixture of the emulsion with the fæcal mass, no leakage of oil can occur.

In addition AGAROL BRAND COMPOUND gently stimulates the peristaltic function, and makes evacuation easy and painless. Used over an adequate period, Agarol tends to re-establish normal function.

There is a steadily growing conviction among the medical profession that in the treatment of atonic constipation AGAROL BRAND COMPOUND as nearly approximates to the ideal as any preparation yet made available for this purpose.

> Manufactured by WILLIAM R. WARNER & Co., INC. 113 West 18th St., New York City.

Kindly address all enquiries to the British Distributors : FRANCIS NEWBERY & SONS, LTD. 31-33 Banner Street, London, E.C.I.

#### INTERNATIONAL CONGRESS ON ALLERGY

The Second International Congress of Allergology was held at the beginning of November 1955, in Petropolis, a summer resort near Rio de Janeiro. The Congress was attended by some 300 delegates and, despite the great distances which many of them had to travel, representatives of all continents were present, including delegates from 14 European countries.

The following subjects were discussed at the Congress: Histamine and the Mechanism of the Allergic Reaction; Immunology and Allergy; Drug Allergy; Asthma; Skin Allergy; Hormonal Allergy; Leprosy and Tuberculosis; Treatment of Allergy.

Each of these subjects was discussed in a separate symposium, which provided an oppor-

tunity to hear the leading specialists in the field and to exchange views with them. The lectures on "Immunology and Allergy" were particularly interesting and mention may be made of the following papers: "Immunological techniques in allergy" by Dr. E. A. Kabat; "Transfer of bacterial hypersensitivity of the delayed type in man by means of whole or disrupted leucocytes" by Dr. H. Sherwood Lawrence; and "Production of allergic injury to organs by the injection of homologous tissue and antigens and adjuvants" by Dr. J. Freund.

In the course of the symposium on the relationship between leprosy and tuberculosis, conducted by Prof. F. E. Rabello, the usefulness



The official platform at the opening session. From left to right: Dr. Fred. W. Wittich (U. S. A.), retiring President of the I. A. A.; Dr. U. Fabiano Alves (Brazil), first Vice-President of the I. A. A.; Prof. B. Halpern (France), elected President for 1958; Prof. Robert Cooke (U. S. A.), guest speaker.

of BCG vaccination in the prevention of leprosy was particularly stressed.

The lectures held in connection with the symposia were delivered in the large lecture theatre to the assembled delegates and were translated simultaneously into four languages. In addition, the week's programme included approximately 150 shorter papers in which various aspects of allergy were discussed.

Prof. Halpern showed a number of experimental and clinical films which had been made by the team working under Prof. Pasteur Vallery-Radot. These included a film of unusual technical perfection which demonstrated by means of bronchoscopic photography the mechanism of the asthma attack.

During the Congress, the delegates of the International Association of Allergology (I.A.A.) held a number of meetings. The retiring President, Dr. Fred. W. Wittich \* handed over his office to Prof. Samuel Feinberg. For the period 1958 to 1961, Prof. Bernhard Halpern was elected President. The Third International Congress of Allergology will be held in Paris in 1958.

\* See article by Dr. F. W. Wittich on p. 183 of the preceding issue.

#### A HUNDRED YEARS AGO

Advances in medicine in 1856 included:

A study of the pharmacological actions of curare — which has since become classic — was published. (BERNARD C.: Analyse physiologique des propriétés des systèmes musculaire et nerveux au moyen du curare. *C. R. Acad. Sci., Paris* 1856, **43**, 825.)

The first experimental extirpation of the adrenal glands was performed and the vital importance of these organs demonstrated. (BROWN-SÉQUARD M. E.: Recherches expérimentales sur la physiologie et la pathologie des capsules surrénales. *C. R. Acad. Sci., Paris* 1856, **43**, 422.)

The zones of sensitivity of the skin corresponding to the various spinal nerves were described (TÜRCK L.: Vorläufige Ergebnisse von Experimental-Untersuchungen zur Ermittlung der Haut-Sensibilitätsbezirke der einzelnen Rückenmarks-Nervenpaare. S. B. Akad. Wiss. Wien 1856, 21, 586.)

A study was made of summational and differential tones and the existence of resultant tones demonstrated objectively, i. e. independently of the human ear. (HELMHOLTZ H.: Ueber Combinationstöne. *Ann. Physik Chemie* 1856, **99**, 497.)

It was demonstrated that venous blood varies in temperature according to the organ from which it is derived, blood from the hepatic vein being the warmest. (BERNARD C.: Recherches expérimentales sur la température animale. *C. R. Acad. Sci.* 1856, 43, 329.)

The action of veratrin on striated muscle (prolonged contraction) was discovered. (Kölliker A.: Physiologische Untersuchungen über die Wirkung einiger Gifte. *Virchows Arch.* 1856, **10**, 235.)

#### ERRATUM

Line 8 on p. 65 in No. 2 of this volume should read "1 % o-phenanthroline solution".

present and interpret statistical evidence — not, of course, the "high-brow" kind interspersed with the Greek alphabet but just "straightforward" figures. Since this confidence is a trifle misplaced we have, as a result, a constant *misuse* of statistics that makes sceptics of us all. It is just those "straightforward" figures that demand so much thought and critical reflection and so rarely get them — from either writer or reader.

#### Observation and experiment

No statistician believes that you can prove anything by statistics. A cautious person, by nature and nurture, he is much more likely to assert that you can prove nothing. He realizes that there is probably no other form of evidence so difficult to interpret. Observations made in the course of "every-day life", and not by means of some carefully conceived experiment, may be at the mercy of many influences. An observed association may be due not to the factor that would appear on the surface most obvious but to some other underlying and concealed factors - for example, the heightened incidence of malaria in marshy places. The situation invariably calls for a detailed, and sometimes difficult, disentangling of the chain of causation, and, by such means, to a final narrowing down to the most likely explanation.

It is important, however, to appreciate that no hard and fast line can be drawn between observation and experiment. Observations may be made in such a way as to simulate an experiment, so that "uncontrolled" and "unwanted" variables are excluded. Thus, for example, did Dr. John Snow (Fig. 1) one hundred years ago demonstrate the association between the pollution of the water supplies and the incidence of cholera epidemics — some 30 years before Koch's discovery of the cholera vibrio<sup>1</sup>. We thus may reach a conclusion, based upon circumstantial evidence, upon which



Fig. 1: John Snow 1813-1858.

no reasonable person should refuse to act. The great strength of the experimental approach lies in the fact that by its means the "unwanted" variables can be *more often* eliminated and thus cause and effect be more conclusively and speedily demonstrated. In recent years the best of both worlds has been sought in the development of the statistically-designed and statistically-guided "experiment" for the solution of human problems.

#### Preventive Medicine

#### The problem of B. C. G.

To take an example of no little importance to mankind, the value of B.C.G. vaccination against tuberculosis has been argued for at least a quarter of a century. On balance the evidence has suggested that protection is conferred but in the absence of a controlled trial it has been able to do no more than suggest. For instance, the comparison of those who choose to be vaccinated (or choose to have their children vaccinated) with those who do not choose is fraught with dangers. In such circumstances it is well known that the choosers may come more frequently from a different social class, that they may take other precautions against infection, that they may come from differently constituted families, e.g. the mother of a single child may bring it for vaccination and the mother of five not trouble to do so, and so on. In short the choosers may be a selected group and, therefore, quite apart from vaccination, not comparable in features which may well affect the incidence of tuberculosis with those who do not choose.

For such reasons the arguments pro and con have meandered along inconclusively with the protagonists optimistically accepting the statistical evidence and the antagonists pointing pessimistically to its weakness.

A controlled trial of B.C.G. Aware of this situation the Medical Research Council of Great Britain decided in 1949 to set up a controlled trial to study what contribution B.C.G. vaccination might make to the problem of tuberculosis in children leaving school and entering upon the adult environment of work, i. e. a time of life at which the incidence of tuberculosis begins to rise in the highly industrial community of Britain.

In and around three large cities — London, Birmingham and Manchester — the parents of boys and girls aged  $14\frac{1}{2}$  to 15 years and about to leave school were invited to allow their children to enter the trial. Between 1950 and 1952 more than 56 000 did so. Initially they were divided by the tuberculin test into those already positive (40 per cent of the total) and those still negative (60 per cent of the total). The latter were divided *at random* into three groups, namely 14100 who were vaccinated with B.C.G., 6 400 who were vaccinated with a vole bacillus vaccine and 13 200 who were left unvaccinated. The important aspect to be noted is the division at random. The allocation to one or other vaccination group or to the unvaccinated group was, in effect, a lottery and thus the three large groups are quite unselected and should be strictly comparable. Further, to avoid bias in the results every definite or suspected case of tuberculosis brought to light in the follow-up was reviewed and accepted or rejected by an independent assessor who was kept unaware of the group to which the child belonged, i.e. of the results of tuberculin tests and whether vaccination had been performed. By such means confidence in the results is greatly increased.

All groups, both tuberculin positive and negative, have now been followed-up regularly and with equal intensity over two and a half years and an interim report has been published<sup>2</sup>. It shows that in that period of time there have been in total 165 definite cases of tuberculosis—104 pulmonary tuberculosis, 36 pleural effusion without evidence of pulmonary tuberculosis and 25 other forms of tuberculosis. Ignoring in the present instance the cases in children positive to tuberculin at entry to the trial, the annual incidence rates in the fundamental categories have been as follows:

Children tuberculin negative and left unvaccinated	1.94	per	1000
Children tuberculin negative and B. C. G. vaccinated	0.37	per	1000
Children tuberculin negative and vole bacillus vaccinated	0.44	per	1000

It will be seen that tuberculosis of one form or another has occurred about five times as frequently in the unvaccinated group as in the vaccinated (see also Fig. 2). In short there is here unequivocal evidence that in this population and environment both vaccines conferred a



This painting of Edward Winslow is a copy by Elisabeth Weber-Fulop of the only contemporary portrait of a 'Pilgrim Father'. It was presented to the town of Droitwich, the birthplace of Edward Winslow, by the Histori-Winslow House Association of Massachusetts. It was unveiled in London in 1954 by The Hon. Winthrop W. Aldrich, the American Ambassodor to the Court of St. 'Yames'.

THE Dean and Chapter of the Cathedral Church of St. Paul in the Diocese of London have directed that at the Service of Evensong on Sunday, May 8th, 1955, at 3.15 in the afternoon, the Tercentenary of the completion of the life's work of

#### EDWARD WINSLOW (1595-1655)

shall be commemorated to the strengthening of the good Anglo-American understanding that this great Christian pioneer laboured so faithfully to promote.

#### AN ANGLO-AMERICAN TERCENTENARY

DWARD WINSLOW was born at Droitwich, Worcestershire on 18th October, 1595. He died at sea, off Jamaica, 8th May, 1655, after devoting the greater part of his life to the service of the little settlement of New Plymouth in New England which was established by the doughty pioneers we now remember as 'The Pilgrim Fathers'.

Prominent among the 'Pilgrim' band, Edward Winslow sailed in the famous 'Mayflower' emigration of 1620.

His prolific writings and the records of his career show him to have been a man of outstanding courage, enterprise and ability. His life was supremely adventurous.

After a sound education at King's School, Worcester, he was apprenticed to a London printer and stationer. He cut short his apprenticeship to join the little colony of exiled Pilgrims in Leyden, Holland, where he worked on a private press which produced Puritan propaganda for distribution in England. After the 'Mayflower' landing the Indians were attracted by Edward's genial and sincere character. Visiting the capital of King Massasoit, he found the great chieftain dying. With simple doctoring he restored his health and a lifelong friendship was established between the two men, paving the way to thirty years peace. Edward's skill and diplomacy had won the small Pilgrim settlement the security that was essential.

Archbishop Laud, in the reign of Charles I, desired to bring the independent New Englanders more directly under the discipline of the Church. Others in England, with eagerness to lay hold on the new plantation, began to defame the Pilgrims whenever possible. Four times did Winslow brave the perils of the Atlantic Ocean to defend the infant Colony's cause in England.

The way to the subsequent establishment of Massachusetts, Mother State of the Revolution, was opened and prepared by his sincere and strenuous diplomacy. He was the statesman among the Pilgrims.

The first British Missionary Society for propagating the Gospel among the Indians received a charter in 1649, largely as the result of Winslow's endeavours and persuasions.

Edward Winslow was three times Governor of the New Plymouth settlement, many times Assistant to the Governor and he was a Commissioner representing New Plymouth on the Council of the United Colonies, North America's first 'Parliament'.

Cromwell, with an instinct for choosing the right man, had assessed Winslow's sterling qualities in conversations with him while the Statesman-Pilgrim was visiting England, Winslow having close and friendly contacts with the Parliamentarians. In 1646 Cromwell persuaded him to remain and serve the Commonwealth, assigning him a series of important executive commissions. His later employment on the Navy Committee and his wealth of experience of Colonial settlement led to his final appointment as Cromwell's Chief Commissioner on an expedition against the Spanish possessions in the West Indies.

In this year, 1955, Jamaica is celebrating a Tercentenary. She is the oldest and most important Colony in the British West Indies. On the night of 9th May, 1655, a British Fleet under Admiral Penn, the land forces serving under General Venables, bore down on the island to wrest it from the dominion of Spain. It was a tragic circumstance that only that day ships of the Commonwealth had lain to while the body of Edward Winslow was committed to the waters of the Caribbean with a salute of 42 guns.

Edward Winslow stands first among the early advocates of Anglo-American understanding and goodwill. The presence of American Servicemen in Britain and Holland today, and the presence in the U.S.A. of British and Dutch NATO trainees, may be said to be a manifestation of the resolve to defend and maintain the freedoms for which the Pilgrims strove and to which Winslow's soul was pledged.

The Tercentenary of the completion of the life on earth of the 'Pilgrim Diplomat' is charged with a special emotion by virtue of the truth that his influence still endures to inspire the English-speaking peoples.

> The British Broadcasting Corporation are planning a programme on the life of Edward Winslow in the week preceding the Service in St. Paul's Cathedral.

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#### Paracetsus

A contradictory character; he blundered much; his mistakes were manifold, but he had some great ideas, and this is a virtue that few possess.

VICTOR ROBINSON : Pathfinders in Medicine.

#### PHILIPPUS AUREOLUS THEOPHRASTUS BOMBASTUS VON HOHENHEIM

was a Swiss, born in Einsiedeln in 1493. He gained his first knowledge of medicine from his father who was a physician. After obtaining his medical degree, he travelled extensively in Europe, accumulating a wide fund of knowledge in medical folk-lore, alchemy and astronomy.

He adopted the name Paracelsus, and early in his career as professor of medical science at Basle he launched into deprecation of current authority in medical thought, which at this time was completely under the influence of the erroneous concepts of Galen. His antagonistic attitude brought about his persecution, which forced him to flee from place to place.

Paracelsus taught that sickness is

due to chemical disturbances in the system and can be cured by the proper chemical. He wrote several books expounding his theories, had a large following among the patients, and did accomplish some wonderful cures. True medicine, he asserted, rested upon four pillars : philosophy, astronomy, alchemy and the virtue of the physician. He practised what he preached.

Paracelsus died in utter poverty in 1541. Three centuries later, his native city erected a statue to his memory, in recognition of his contributions to medicine. He introduced several new mineral drugs, but his greatest service to the profession was accomplished by overthrowing its thoughtless subservience to ancient authority.

#### PARACELSUS was a keen observer.

IGESTION he considered a chemical process which separated the nutritive part of the food from that which was not inert but actually harmful. If the latter was not removed from the body, it might in itself become a poison and cause disease.

Not a far shot from present-day medical observation concerning the effects of constipation. The pathology remains, but the treatment has changed. The "Specificum Purgans" of Paracelsus has given away to rational treatment along physiological lines.

AGAROL BRAND COMPOUND, the *original* mineral oil and agar-agar emulsion with phenolphthalein, is in keeping with the modern conception of the efficient treatment of constipation. Agarol supplies just the right quantity of mineral oil, properly emulsified, to mix with the intestinal contents, keep them soft and pliable, and make evacuation easy and painless.

Agarol pours easily from the bottle as a good emulsion should. It is so palatable that it appeals to the most fastidious taste, because it contains no artificial flavouring. Children take it readily.

As an easy-flowing emulsion, Agarol Brand Compound is so stable that it may be diluted with water, milk or any liquid, for those who prefer it that way, or when it must be disguised for any reason. It may be mixed with porridge, mashed potatoes, or any soft food, or used as a salad dressing.

Experience shows that normal functioning of the bowels can be restored and maintained only by habit formation and by mental impression upon the patient. To accomplish these desirable results, it is necessary that the sluggish intestinal tract be stimulated so that evacuation occurs at regular and desired intervals. By gentle stimulation of the peristaltic function, Agarol makes the result certain. Taken at bedtime, evacuation will generally occur soon after breakfast next morning. Taken during the day, the result will follow in about eight hours. In proper doses, Agarol is effective enough for the most resistant case of constipation, yet gentle enough for the aged and for very young children.

The composition of Agarol is based not on theories but on carefully controlled experience. It contains no excess of mineral oil to cause leakage or to interfere with intestinal absorption of food. Test animals can be actually starved to death by such an excess of unabsorbable liquid.

Agarol places little stress on bulk. The bulk should be supplied by properly regulated diet. In constipation, however, the bulk is generally there; its outward movement constitutes the problem. To add more bulk would merely overload the intestine, cause distention and aggravate the condition.

Agarol Brand Compound is destined for the physician who places facts above theories and who is willing to be convinced by his own experience. To those who have tried it, Agarol has brought a new conception of therapeutic efficiency in the treatment of constipation. This efficiency is attested by the fact that the dose of Agarol can be reduced after a brief period of treatment, and

> eventually its administration discontinued.

> What better proof need there be of therapeutic result than the fact of early improvement and eventual recovery?

> > for CONSTIPATION

Manufactured by WILLIAM R. WARNER & CO., INC. 113 WEST EIGHTEENTH STREET, NEW YORK CITY

AROL

Kindly address all enquiries to the British Distributors FRANCIS NEWBERY & SONS, LTD. 31-33 BANNER STREET, LONDON, E.C. I

GAROL

GLE AGAR



#### HIPPOCRATES

"To Hippocrates we owe the establishment of the inductive method of logic. The Father of Medicine was also the father of inductive thought."—LORD MOYNIHAN.

BORN on the island of Cos, 460 B.C., Hippocrates received his early medical training from his father, Heraclides. Later he travelled through Athens, the cities of Thessaly and the Black Sea, and of Asia Minor and Egypt.

THE "Works of Hippocrates" are the measure of the man, because biographical facts concerning him are few. But of the sixty books perhaps not more than twelve can be attributed to Hippocrates himself. It is certain that most of these writings form a compilation of accumulated medical knowledge, stripped of its legends and superstitions, in the time of Hippocrates.

HIPPOCRATES died at Larissa in 370 B.C., in his ninetieth year.

#### Even in the Time of Hippocrates There Was a Traditional "Old" Medicine

MEDICINE was "old" even in the time of Hippocrates. Its beginnings were lost in the dim prehistoric period of the Greeks. But in that intellectual period of Grecian life when Phidias carved his magnificent sculptures; when Sophocles and Euripides wrote their immortal tragedies, and Aristophanes his comedies; when Socrates and Plato represented philosophy, and Herodotus and Thucydides recorded history, medicine could hardly have remained at a standstill.

FROM the maze of superstition that had grown around medicine, Hippocrates saw his way out clearly. He rightly believed that the proper way to start the patient toward recovery was to re-establish normal bowel function, a principle that has survived because of its soundness.

ONLY the methods have changed. Hellebore and suppositories have given way to mineral oil emulsion,-to Agarol Brand Compound; because the methods of another age have been translated into modern therapeutic conceptions.

TO THE axiom that experience is the best teacher, may also be added—experiment. Experience and experiment have placed their stamp of approval on Agarol, the original mineral oil and agar-agar emulsion with phenolphthalein. AGAROL BRAND COMPOUND combines the sound principle of softening the intestinal contents with the gentle stimulation of peristalsis. It contains just enough mineral oil, emulsified with exceptional thoroughness, to mix readily with the fæcal mass and not leave an excess which may interfere with absorption of food or cause leakage; just enough phenolphthalein to assure the forward movement of the intestinal contents.

CONSTIPATION means stasis because of the absence of an adequate peristaltic force of the colon and rectum. Stasis can be relieved only by stimulation of the intestinal reflex. This is accomplished by the stimulating action of Agarol. But lest peristalsis find itself handicapped by a hard, unyielding mass, Agarol simultaneously furnishes moisture that softens and lubricates.

AGAROL BRAND COMPOUND has shaken off the bonds of traditional "old" ideas in the treatment of constipation. Experiment and experience have proved the principle behind it sound. It is outstanding in its effectiveness and palatability.

TO-DAY, thousands of physicians the world over use Agarol exclusively in the treatment of constipation. They know there is nothing better.



#### Manufactured by

William R. Warner & Co., Inc. 113 W. 18th St., New York City Kindly address all enquiries to the British Distributors Francis Newbery & Sons Ltd. 31-33 Banner St., London, E.C.1.

A-31.



#### HUGH OWEN THOMAS (1834 - 1891)

A famous surgeon and author, inventor of the well-known surgical contrivance, THOMAS' SPLINT. (See other side.)

Hugh Owen Thomas was born in Anglesey; apprenticed to his maternal uncle, Dr. Owen Roberts of St. Asaph's; entered University of Edinburgh, but afterwards completed his medical education in University College, London; qualified in 1857, went to Paris to study surgical appliances; returned to Liverpool where he specialised in joint lesions, inventing, amongst other contrivances, his famous splint.

THOMAS' SPLINT: As applied in a case of hip-joint disease, this consists of a flat rod of malleable iron, about an inch and a half wide, extending from the axilla to below the knee; it is shaped so as to fit the varying curves of the body, and cross pieces embrace the trunk at the level of the nipples, as also, the thigh and the calf; it is firmly bandaged to the body and limb. A patten is placed under the boot of the leg, and the patient allowed to get about on crutches.

(With the compliments of the Proprietors of "Topical Therapy.")



to my ability and Judgement, but will never use it to injure or wrong them."

To face p. 8]

#### **BUSINESS**

- 1. To Open the Lodge.
- 2. To Read, and if approved, confirm the Minutes of the meeting of the 5th December, 1956.
- 3. To Report on the Proceedings of Grand Lodge.
- 4. To Raise Bro. H. W. Mason and Bro. P. Ainley.
- If present, to Initiate: Mr. David John Boydell Butt, Born 11/7/1935. Assistant Purser,
   2, Salmon Street, Kingsbury, London, N.W.9. and of Messrs. Cunard Steamship Co. Ltd., Cunard Buildings, Liverpool, Lancs. Proposed by Bro. C. L. F. B. Butt.
Varia. Oddments Cuthing all have me Merce Actail 1 History

John Aunter 1728. 1793 The Greaters Phypic - Ologist that sur Iwed, With his brother Willia the Anatomical School I Lorda was raised tils present celebits BAL Brothers came & London with no capital except Genius Industry helegrits Deats sudden & Trafie at a Board Meeting H . . 214

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#### Business

- 1. To open the Lodge of St. Lawrence the Martyr.
- 2. To read and, if approved, confirm the Minutes of the Regular Meeting held on 26th February, 1958.

To Ballot for as a Candidate for the Allied Masonic Degrees and, if approved, confer the Degree of St. Lawrence the Martyr on : CHARLES ERSKINE SIMES, Q.C. Barrister-at-Law.
3 Hanover Square, London, W.1. Craft : Worcester Lodge, No. 280, Dep.Gd.Reg. Mark : Euston Lodge, No. 399, P.Gd.Deacon.
R.A. : Saint Wulstan's Chapter, No. 280.
Proposed by The M.W. Grand Master, C. F. Cumberledge, C.B.E.
Seconded by The Grand Secretary, R.W.Bro. Lt.-Col. John Chitty, M.B.E.
W.Bro. THOMAS FAULKNER GAMMAGE. Solicitor.

3 Spencer Parade, Northampton. Craft : De la Pre Lodge, No. 1911. Mark : Simon de St. Liz. Lodge, No. 245. R.A. : Eleanor Cross Chapter, No. 1764. Proposed by R.W.Bro. Charles Messinger, P.G.W. Seconded by R.W.Bro. Percy Coleman, P.G.W.

- 4. To elect the Master, Treasurer and Tyler, for ensuing year.
- 5. To transact any other business.
- 6. To close the Lodge.

3.

N.B.—The Degree of G.H.P. will be conferred in Grand Council on the following Members, if present:C. B. H. COLQUHOUN, F. J. GRIFFIN, M. G. EDWARDS, and T. F. GAMMAGE.

Sir Sambert Over nis with Broky Llong Bange The greatest Education links

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#### THOMAS CORAM

Capt. Thomas Coram was a man of striking personality and untiring energy. Born at Lyme Regis in 1667 or 1668, he first followed his father's occupation of seafaring. In 1694, we find him in Taunton, Massachusetts, as a shipwright, where he began to exercise that philanthropy which absorbed his later life. In the early part of the 18th century, he took to the sea again, until, after being shipwrecked, he retired to London, in 1719. Here he interested himself in the English movement for the settlement of Georgia and in planting English artisans in Nova Scotia; but he soon began his long agitation for the foundation of the world-famous Foundling Hospital, for which he obtained a Royal Charter in 1739.

Coram must have had a way with him, since he succeeded much to the enrichment of his Hospital—in surrounding himself with artists and musicians of the highest order, to embellish the premises and attract generous almsgivers to the services in the Chapel. With many works of art quite a number from the brush of Hogarth—and with the famous Handel at the organ, the institution flourished.

More thoughtful for others than for himself, Coram fell into poverty, from which he was relieved by an annuity of  $f_{\perp}16_1$ , provided by personal friends and admirers. He died in his 84th year and, at his own request, was interred in the Chapel of the Foundling Hospital.

Our illustration on the front page shows the original building, which has now been pulled down, but the valuable site will be preserved as a playground for London children.

Medical Practitioners who desire further information (especially in regard to technique of "Iodex" treatment) are invited to address their enquiries to

> Menley & James, Ltd., P.O. Box 12A, Hatton Garden, London.

Clinical reports of cases in which either "Iodex" iodine ointment or the reconstructive tonic, Neuro Phosphates, (Eskay Brand) has been employed are always appreciated, and are treated with strict ethical reserve.

> CAPTAIN THOMAS CORAM, by Hogarth. Founder of The Foundling Hospital. From the original in the Foundling Hospital

The M.&J.Series of Famous Hospitals and their Founders Nº 2

## The Ideal Spring Tonic

The exceptional reconstructive properties of Neuro Phosphates (Eskay Brand), the ideal preparation of the glycerophosphates, are now recognised by the medical profession throughout the British Empire, as well as in America. In the spring, the need of

> such an agent is particularly felt after the resistancereducing conditions associated with winter time, notably in bronchial, pleural and influenzal conditions. Neuro Phosphates is exceptionally efficacious, markedly palatable, and invariably well tolerated, even by neurasthenic patients.

#### NEURO PHOSPHATES (Eskay Brand)

Indicated as a general tonic, especially in convalescence; also in neurasthenia, nerve weakness in young and old, and in debility resulting from excessive physical or mental exertion.

Issued for prescription in 8-oz. bottles, and for Hospitals and doctors' dispensaries in Winchesters of 80 fluid ozs.

# A Clearer Conception !

The object of this message is not to enforce the claims of "Iodex" as the ideal form of iodine for external use, but to give the practitioner a clearer conception of its wide field of usefulness. The value of iodine in the treatment of enlarged glands and rheumatic affections is acknowledged throughout the civilized world—from New Zealand to Nova Scotia, from China to Peru and if "Iodex" were not demonstrably and overwhelmingly superior to the Tincture in possibilities, its uses might be similarly restricted to a few such indications.

The superiority of "Iodex," however, is manifest. In the first place it is more active and penetrating than the Tincture, and secondly it is entirely bland. For these reasons, "Iodex" is employed daily, with gratifying results to the practitioner and comfort to the patient, in four groups of conditions in which Tr. Iodi, is worse than useless, *i.e.*, (I) hæmorrhoids, pruritus ani, fistula, vaginitis, etc., (2)

mastitis, enlarged prostate, orchitis, ovaritis, etc., (3) burns and scalds, ulcers, boils, abscesses and open wounds, (4) parasitic skin diseases notably ringworm, psoriasis and eczematous conditions.

There can be no clear conception of *iodine* therapy, until the wide applicability of "*Iodex*" in ointment form has been carefully appraised.





#### RAHERE

Rahere is often spoken of as jester to King Henry I, but this is probably incorrect. The little that is known of him is that he was lowly born, but had entertaining qualities which ensured his entrance into the houses of nobles and finally into the King's Court.

This gay life, however, was suddenly forsaken, and tradition has it that this was due to the King's severe admonition when he discovered that Rahere was at home planning revels for the return of that Prince who went down with the White Ship when, according to the same story, Rahere should have been accompanying the Prince. This dereliction of duty coming to light at a time when the King was in great distress, may have made His Majesty's remarks unusually pungent.

In any case, a deep religious emotion and a sense of penitence swept over Rahere, who consequently proceeded on a pilgrimage to Rome. On his journey, he was overtaken by illness—probably a fever—and it is said that he made a... vow to St. Bartholomew (usually identified with Nathaniel) that if allowed to recover and return to England he would build a hospital in Smithfield for the poor. Supported by the Bishop of London, Rahere petitioned the King, and secured a grant of the very land referred to in his vow, and with his own hands helped to build the fabric of the hospital which he actually controlled from its foundation until his death twenty years later, in 1143.

Medical Practitioners who desire further information (especially in regard to technique of "Iodex" treatment) are invited to address their enquiries to

> Menley & James, Ltd., P.O. Box 12A, Hatton Garden, London.

To any Practitioner who has not already had the opportunity of making a clinical trial of Neuro Phosphates (Eskay Brand), we will gladly send a sample on request.

> RAHERE Traditional Figure Founder of Barts

The M.&J.Series of Famous Hospitals and their Founders Nº 3

214

EURO PHOSPHAT SKAY BRAN

ENLEY & JAMES

## "Iodex" versus the Tincture

" Iodex " gives incomparably superior results in cases where Tr. Iodi. was formerly used-and it can be freely employed in many cases in which Tr. Iodi, would be contra-indicated.

When the Tincture is employed, there is staining. irritation, burning, limited penetration, and restricted iodine efficiency; when "Iodex" is applied, there is no staining, no irritation, no burning, no subsequent desquamation, but complete penetration and 100 per cent. iodine efficiency. Therefore, " lodex " has immeasurably widened the field of iodine therapy.

" Iodex " ointment is standard treatment in the following conditions, in many of which Tr. Iodi. could not safely or advantageously be employed. Enlarged Glands (e.g., Goitre), Tuberculous Joints, Synovitis, Sciatica, Neuritis, Arthritis,



Parasitic Skin Diseases (e.g., Ringworm), Syphilitic Rashes. Hæmorrhoids. Vaginitis, and Inflammatory conditions generally.

Method of Application. - If possible, rub in the ointment until its colour disappears. If rubbing is impossible, or inadvisable, "Iodex" may be applied under a light, loose bandage. Tight, air-excluding bandages should never be employed over " Iodex."

# The First Essential!

When treating many ill-defined pathological conditions such as neurasthenia, nervous debility and excessive mental strain, one of the first aims

of the physician is to instil confidence in the patient. As a natural corollary, he very properly demands a preparation that merits his own confidence-unshakable and complete.

### **NEURO PHOSPHATES** (Eskay Brand)

After innumerable clinical tests, this preparation has proved worthy of entire confidence from both the clinical and pharmacological viewpoints. Moreover, we have made it our ideal never to betray that

confidence. Consequently Neuro Phosphates remains to-day a high-grade, trustworthy, ethical product, eminently suitable for the physician's use.

Neuro Phosphates is a potent concentrated tonic. Therefore, where long continued treatment is indicated e.g., for chronic neurasthenics dosage may be advantageously reduced from the two teaspoonfuls usually given to adults, to, say, one teaspoonful or a little more, according to the response elicited.

Issued for prescription in 8-oz. bottles, and for Hospitals and doctors' dispensaries in Winchesters of 80 fluid ozs.

#### JOHN ASH

Towards the end of 1765, a modest advertisement appeared in the <sup>h</sup> Birmingham Gazette," inviting county gentlemen and others to attend a meeting to discuss the founding of a hospital-in that city.

The man behind the movement was Dr. John Ash, and apparently he addressed the meeting to good purpose, as he raised the sum of three thousand pounds, and received promises of some annual subscriptions.

Within four years, however, the money was exhausted, and the matter lay in complete abeyance for the next seven years; after that the financial situation improved, the hospital was finished and formally opened in September, 1779. That money had a different value in those days may be gathered from the fact that in that year four nurses were engaged at four guineas each per annum, and they were promised an extra guinea, as a Minute quaintly observes, "if they behave well." Also, a barber was to visit the

hospital to shave patients for half a guinea per quarter.

Dr. Ash, who never spared himself, suffered from overwork, and it is said that his reason was only saved by resigning from the hospital and taking up the study of mathematics. Later, however, he practised medicine in London, after passing the examination of the College of Physicians at sixty-five years of age. He also became Fellow of the Royal College of Surgeons.

Ash was born in Coventry in 1723 and died in London in 1798. His portrait, painted by order of the Governors of the Birmingham General Hospital by Sir Joshua Reynolds, still hangs in the hospital committee room.

Medical Practitioners who desire further information (especially in regard to technique of "Iodex" treatment) are invited to address their enquiries to

> Menley & James, Ltd., P.O. Box 12A, Hatton Garden, London.

Clinical reports of cases in which either "Iodex" iodine ointment or the reconstructive tonic, "Neuro Phosphates" (Eskay Brand), has been employed, are always appreciated, and are treated with strict ethical reserve. The M&J. Series of Famous Hospitals and their Founders Nº 4

JOHN ASH After Reynolds. From the original in the Birmingham Haspital Founder of the Birmingham Hospital.

214

# Calcium and Phosphorus Deficiency

The physiological importance of calcium and phosphorus in the treatment of neurasthenic conditions where the calcium and phosphorus reserve has been depleted, and in convalescence, is now generally recognized; and admittedly the



most advantageous method of administering calcium and phosphorus is in the form of glycerophosphates. Neuro Phosphates (Eskay Brand) contains calcium and phosphorus presented in the ideal glycerophosphate form.

#### NEURO PHOSPHATES (Eskay Brand)

It is readily assimilable, and even prolonged use does not give rise to gastro-intestinal irritation — the common fault of ordinary calcium salts. This ideal tonic is indicated

in neurasthenia, nerve weakness, and also in debility resulting from excessive physical or mental exertion.

In the case of easily excited, emotionally unstable, or too mentally active patients, the separate administration of a mild sedative, such as potassium bromide, in the intervals between doses of Neuro Phosphates, may be indicated.

## **A Few Pointers**

That iodine is of value in a wide range of abnormal conditions—especially in inflammations—is universally recognized.

A few pointers, however, may be acceptable to those practitioners who meet with such conditions either occasionally, or from day to day.

1 If counter - irritation is requisite, do not use "Iodex"!—(A bland iodine ointment cannot serve.)

In gland work, Tr. Iodi. is not definitely contraindicated, but its staining and hardening properties may induce you to pause and consider.

In rheumatic affections, where frequent applications are essential, the hardening and corrosive action of the Tincture are sufficient argument against its use.

Not only in glandular enlargements and rheumatic pains, but also in all external inflammations, iodine, as presented in "Iodex," is ideal.

"Iodex" does not stain, harden, burn, or corrode and its employment is not followed by desquamation. "Iodex," unlike

the Tincture, preserves the vital qualities of the skin—unimpaired.

You may, therefore, apply "Iodex" even where Tr. Iodi. would be contraindicated, *i.e.*, in hæmorrhoids, vaginitis, mastitis, orchitis, and parasitic skin diseases —ringworm, for example.



Servic

Practical

10

Pictorial Message

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Issued for prescription in 8-oz. bottles, and for Hospitals and doctors' dispensaries in Winchesters of 80 fluid oz.
#### THOMAS GUY

Two years after the Great Fire of London, Thomas Guy began business as a bookseller and could be seen daily, in a shabby suit, taking his frugal meal at his own counter, with an old newspaper for a tablecloth. His chief trade was in Bibles, first importing them from Holland and later printing copies in England. His real fortune, however, was derived from the sale—on a favourable market—of his original shares in South Sea Stock—before the bubble burst.

Guy had his little romance, too! The lady of his choice was his own maid-servant. Unfortunately, having told her to have a stone repaired in front of his shop, she instructed the paviors to repair not one stone, but possibly two! Visions of an extravagant wife may have decided Guy to

renounce-as he did-all views of matrimony !

Among his neighbours, he was accounted selfish and avaricious, as his wide-spread benefactions were unsuspected until after his death. During his lifetime he released insolvent debtors, started men in business, relieved distressed families, built and furnished three wards of St. Thomas's Hospital, and built and endowed almshouses and a library at Tamworth. He was also a liberal benefactor of the Stationers' Company and (1722-1724) at a cost of nearly £20,000, built the hospital which bears his name.

Finally, he left generous legacies, bestowed £400 a year on Christ's Hospital, and bequeathed over £200,000 for the maintenance of Guy's. He was born in 1644 or 45 in Horselydown, Southwark, London, near where his Hospital now stands, and died December 27th, 1724, a few days before the first patients were admitted.

Medical Practitioners who desire further information (especially in regard to technique of "Iodex" treatment) are invited to address their enquiries to

MENLEY & JAMES, LTD.,

P.O. BOX 12A, HATTON GARDEN, LONDON.

To any Practitioner who has not already had the opportunity of making a clinical trial of Neuro Phosphates (Eskay Brand) we will gladly send a sample on request.

> THOMAS GUY Founder of Guy's Hospital

The M.& J. Series of Farmous Hospitals and their Founders Nº 1

# "Iodex" Therapy

"Iodex" is of unparalleled service in a wide range of conditions in which Tr. Iodi. would be wholly inadmissible. The wideness of that range is striking, but ceases to be surprising to anyone who will give the matter a few moments' thought. Because of its blandness, "Iodex" can be applied *ad libitum* even to mucous or extremely sensitive surfaces.

There is no external surface of the body except the eyes—to which "Iodex" cannot be beneficially applied; and even the deeper orifices are treated daily with this ointment without risk of irritation. That is why "Iodex" is of such marked service in say, hæmorrhoids, vaginitis, mastitis, and parasitic skin diseases, *e.g.* ringworm.

To state the case against Tr. Iodi. in such



conditions as these would be waste of time. Its inadmissibility is obvious and also complete.

N.B. With two exceptions, "Iodex" is successfully employed for every purpose which could be achieved by iodine in tincture form: (1) "Iodex" is not a counter-irritant and (2) it is unsuitable for skincleansing prior to operation.

# **Post-Influenzal Convalescence**

When the original invasion has spent its force, and the temperature decreases to normal or sub-normal, a period of depressed vitality and lowered resistance usually follows, and often

proves more resistant to treatment than the disease itself. To shorten the wellknown danger period after influenza, Neuro Phosphates is of proved therapeutic value.

# NEURO PHOSPHATES (Eskay Brand)

This product is an agreeable combination of calcium, sodium and strychnine glycerophosphates in acid form. Its exceptional palatability ensures the full cooperation of the patient. Neuro Phosphates improves the appetite, helps the patient



Practical Service

Message of

Pictorial

3



to build up his own resistance, and restores him to healthy activity again—swiftly and surely !

Issued for prescription in 8-oz. bottles, and for Hospitals and doctors' dispensaries in Winchesters of 80 fluid ozs.

# **MEN**—AND MICROBES **2**—ANTHONY VAN LEEUWENHOEK

In the 17th century a man looked through a microscope, and for the first time in all history saw a micro-organism. Leeuwenhoek (1632-1723) was not a medical practitioner. Some people would have called him a draper, but he was a scientist of the pure breed. Not the inventor—but the improver—of the microscope, he made many examples for his own use, some of them so precious in his sight that he refused to let anyone else touch them. He supplemented Harvey's discovery of the circulation of the blood by tracing the capillaries in the frog's foot, and was the first man to look into a drop of rain water and discover—to his own astonishment and that of all doctors and philosophers of his time—that there was a microscopic world more closely filled with animate objects than the larger world of men.

To him, perhaps, as much as to anybody else, we owe that persistent search in the almost invisible world for the causes of some of the most appalling pathological conditions. In his steps, others have traced the microscopic and ultra-microscopic carriers of syphilis, tuberculosis, yellow fever, bubonic, malaria, influenza, etc. But the search, ever going forward, is unending.

Leeuwenhoek contributed many papers to medical and scientific bodies in England, and his last command when he died in 1723 was for an assistant to translate two of his final letters, and "send them to London for the Royal Society." He laboured through a long life in the ancient Dutch city of Delft, and in its fifteenth-century church lie his mortal remains. In pace requiescat.

Medical Practitioners who desire further information (especially in regard to the technique of "Iodex" treatment) are invited to address their enquiries to

Menley & James, Ltd. P.O. Box 12A, Hatton Garden, London.

Clinical reports of cases (in which either "Iodex" iodine ointment or the reconstructive tonic, "Neuro Phosphates" has been employed) are always appreciated, and are treated with strict ethical reserve.

# ANTHONY VAN LEEUWENHOEK

Commonly regarded as the first man who ever saw a microbe. (See back page.)

The VI&. Series

214

Men-and Microbes Nº2

# Two Types of Convalescents

1. IN CHILDHOOD—Won't eat . . . doesn't care . . . tired . . . utterly despondent ! This is a typical picture of juvenile convalescents.

The first step towards recovery is to "get them interested"... to restore the youthful optimism which days of sickness and confinement have impaired. The next step is to stimulate the lost appetite and help build up strength in the shortest possible time, and here Neuro Phosphates is of unquestioned value. It tones up the system, increases the appetite and supplies calcium and phosphorus



in a readily assimilable form.

2. IN OLD AGE—Aged convalescents are usually less able to help themselves to recovery than those whose resistance is higher, and whose spirits are more resilient. At the same time, they are often fretful and intolerant of medication that is not light, very easily tolerated and exceptionally agreeable to the palate.

In young and old alike, Neuro Phosphates (Eskay Brand) is of especial value in shortening the period of convalescence and producing a more optimistic mental

outlook. Being light, pleasant and easily tolerated, it ensures the co-operation of the convalescent, and does not weary the palate on continued use.

# In Sprains and Strains

The first line of treatment in sprains and strains either of joints, muscles or tendons, is to massage at the earliest possible moment, with "Iodex" ointment. Where there is much swelling, pain, and tenderness, the massage must essentially be gentle. Begin by rubbing the flat of one finger just within the margin of the swelling nearest to the heart, and as the swelling gets dispersed, work further into it, gradually increasing the treated area and amount of pressure until the swollen part is reduced, as far as possible, to normal dimensions.

# IODINE "IODEX" OINTMENT

The benefits derived from massage with "Iodex" can be very greatly augmented by first applying some form of heat to the part to be treated. The "Iodex" not only acts as a lubricant, but is also rapidly absorbed into the tissues through the skin, which enables its iodine content to exercise its well-known alterative properties, thus helping materially in dispersing the blood clot infiltrating

the tissues. This is of course a point of importance. Where there is broken skin to deal with, "Iodex" forms an excellent dressing. "Iodex" does not irritate, harden or stain the skin nor lead to desquamation. It may, therefore, be applied, if the case demands it, frequently and *ad libitum*.



Issued for prescription in 8-fluid-oz. bottles, and for hospitals and doctors' dispensaries in Winchesters of 80-fluid-ozs.

### MEN-AND MICROBES

#### = 5-LAZARO SPALLANZANI, 1729-1799 =

The first microbe hunter, Leeuwenhoek, had been dead six years when, in 1729, was born in Scandiano, Northern Italy, his illustrious follower Lazaro Spallanzani. Although, in later life, a renowned traveller, moving far afield, even as far as Turkey, Spallanzani's greatest work was done at Modena and Pavia, both within a few miles of his own village.

Like Leeuwenhoek, he was determined to find out the hidden nature of things and, although destined for the law, by the aid of one of the noted scientists of his day he was enabled to resist parental preference of career, and eventually, receiving his father's blessing, went to the University at Reggio di Modena to

take up a scientific, and more agreeable, profession. Unlike Leeuwenhoek, he was forced to learn mathematics, Greek, French, logic, poetry, and he came to his microbe hunting a fully equipped scholar and scientist. Before he was thirty he was Professor at his former University, at Modena, and began his investigations on the microscopical living creatures that Leeuwen-

hoek had first discovered.

In Spallanzani's time, the popular side in a fierce fight asserted that life could arise spontaneously, thanks, said Needham, the English laboratory worker, and Buffon, the celebrated French naturalist, to "Vegetative Force." It was Spallanzani who demolished their edifice by demonstrating that even microbes must have parents. Whatever his private views, there is no mention in his works of any possible connection between microbes and disease—perhaps he did not suspect it.

Medical Practitioners who desire further information (especially in regard to the technique of "Iodex" treatment) are invited to address their enquiries to MENLEY & JAMES LTD. P.O. Box 12A, HATTON GARDEN, LONDON.

To any practitioner in Great Britain or Northern Ireland who has not already had the opportunity of making a clinical trial of Neuro Phosphates (Eskay Brand) we will gladly send a sample on request.

Men-and Microbes Nº 5



# LAZARO SPALLANZANI

Spallanzani exploded the theory of spontaneous generation. "Even microbes have parents". (See back page.)

# COMMON SKIN DISEASES

As every doctor learns, to his dismay, even common skin diseases are legion; and no single therapeutic agent can be of service to combat them all or, in truth, a tithe of them. At the same time, however, it is admitted that any medicament which is parasiticidal, deeply penetrative, skin preserving and emollient, must be of considerable service to the dermatologist. For this reason, "Iodex" ointment is to-day an essential item in his armamentarium. It is non-irritating, non-staining, deeply penetrating; and it does not impair the vital properties of the skin.

"Iodex" ointment stimulates mucous surfaces, is a reliable absorbent, and rapidly reduces inflammation—all without pain or irritation. It can, therefore, be freely applied where old-style preparations of Iodine—notably the Tincture—are inadmissible. No medical practitioner can appreciate the



practitioner can appreciate the remarkable therapeutic potentialities of Iodine as an external remedial agent, or its wide range of usefulness, until he has had experience of the drug as presented in "Iodex." In suitable conditions "Iodex" may be rubbed in until its colour disappears, or, where rubbing is contra-indicated, it may be applied under a light bandage.

Important note: Tight, air excluding bandages should never be employed.

A booklet giving the technique of "Iodex" treatment in Glands and Lymphatics; Rheumatism and Joints; Respiratory Area, and Ear, Nose and Throat; Minor Injuries; Skin Diseases; Ano-Rectal Conditions; Genito-Urinary Conditions; and Gynæcology, will be sent on request.

# NEURO PHOSPHATES AND CONVALESCENCE IN MIDDLE AGE

To the active patient of middle age, convalescence is often a period of disappointment and frustration. Neuro Phosphates (Eskay Brand) is of unrivalled value in shortening this trying period. It is an ideal tonic and reconstructive, and at the same time stimulates the appetite and improves digestion. Being light, pleasant and easily tolerated it ensures the co-operation of the convalescent, and moreover, does not weary the palate on continued use.

Each fluid ounce contains in acid state, calcium glycerophosphate 8 grains, sodium glycerophosphate 8 grains, and strychnine glycerophosphate  $\frac{1}{16}$ th grain. Neuro Phosphates is indicated in the lowered vitality seen in neurasthenia, nerve weakness and debility resulting from excessive physical or mental strain.

Although Neuro Phosphates (Eskay Brand) is a complete preparation in itself, and is best prescribed by the original bottle, it is, nevertheless, so concentrated that, when the patient's condition and circumstances warrant, the cost may be reduced to your patient by prescribing one part of Neuro Phosphates to three parts distilled water, ordering one tablespoonful, t.i.d.

Issued for prescription in 8-oz. bottles, and for hospitals and doctors' dispensaries in Winchesters of 80 fluid-ozs.





For the physician there is only one rule: Put yourself in the patient's place.-LORD LISTER

Nineteenth Century

LORD LISTER [1827-1912] PROFESSOR of surgery at Glasgow University in 1860, where



he commenced his investigations on the use of antiseptics which later revolutionized surgical procedure. From his discoveries, the present system of aseptic surgery developed. He who doth strive against experience is not worthy to discourse of high science.—DU BARTAS



#### John Braxton Hicks (1825–1897)

English gynæcologist. The intermittent contraction of the uterus after the third month of pregnancy, or as a result of uterine tumour, was first announced by him.

#### Board of medical examiners established in London in 1376



George Budd described an atypical cirrhosis of the liver (without jaundice) from auto-intoxication—known as Budd's Disease.

GEORGE BUDD (1808-1882)

#### St. Thomas's Hospital in London was founded in 1561



#### Hodgkin's Disease

In 1832 Thomas Hodgkin recorded a series of enlargements of the lymphatic glands and spleen. From the motley group that Hodgkin described, Wilks picked out the disease and called it *anaemia lymphatica*. Other names that have been given it are *adénie* by Trousseau, *pseudoleukaemia* by Cohnheim.

THOMAS HODGKIN (1798-1866)



#### William Withering (1741–1799)

Primarily honoured in medical chronicles for the part he played in bringing digitalis into proper use. Withering's versatility touched upon many subjects. He played the flute and harpsichord, was a climatologist, and a breeder of dogs and cattle. Greatly famed for his botanical studies, he was referred to as "the flower of physicians."

Observation more than books, experience rather than persons, are the prime educators. - A. B. ALCOTT

#### DENTISTRY

JEAN JACQUES JOSEPH SERRE (1759-1830)—He published an important work on dental operations. He wrote of toothache during pregnancy, of disease of the gums, and of oral hygiene. He proposed numerous new ideas in his profession.



#### Early Smallpox Inoculations

Preparations took six weeks. They bled him to see whether his blood was fine, he was purged to a state of emaciation, and dosed with a diet and drink to sweeten the blood. Then, haltered with others, he was placed in an inoculation stable. For the sensitive eight-year-old Jenner, the experience was never forgotten.



#### Sims—Tin Trumpet Serenade

Sims and his fellow-serenaders, satisfied with their tin trumpet serenade, decided to depart, but not before the irate head of the girls' school descended upon them. He fired a gun and hit a student. The student swung round and, levelling his gun at the headmaster, would certainly have shot him if the gun had not jammed.

[ 364 ]

#### Celsus (25-30 B.C. to 45-50 A.D.) gave the best summary of Roman and Alexandrian medicine



STRONG MEMORIAL AND MUNICIPAL HOSPITALS

#### University of Rochester

Established in 1850, the Medical School in 1925. The new School of Medicine and Dentistry is organized along modern lines and facilitates close co-operation between medical school, hospitals and other public institutions.

# John Hunter was a great contributor to the science of comparative anatomy



INSTITUTE OF LEGAL MEDICINE

#### University of Gratz, Austria

Founded 1585 with a Medical Faculty Faculty of Arts. After the political difficaties of 1782, the Medical Faculty was not reorganized on modern lines to grant the doctor's degree until 1863. Take nothing for granted that may seem inconsistent with reason or established facts, simply because someone of acknowledged authority may have said it.—J. PROCTOR KNOTT



#### PAEDIATRICS (17th Century)

STEPHEN BLANKAART in 1684 prepared the first treatise on diseases of children written in the Dutch language. Up to that time every work on paediatrics was written in Latin. This illustration is the frontispiece of Blankaart's book. Nobody grows old merely by living a number of years. People grow old only by deserting their ideals. Youth is not a time of life; it is a state of mind.



OBSTETRICS (16th Century)

> LVING-IN chamber, reproduced from an edition of Jacob Rueff's book for midwives. In the background appears the kitchen.

Photographs. Samuel Brown Robt Lista John . Hilton This . Peacock George Burrows Caesar Hawkins C ~ Williams Thos Watson W Stokes James Paget Jonathon Hutchinsa

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1.15 p.m. Buffet lunch at Downing College (price 5/-)

2.15 p.m. Papers:

Dr. R.F.W.Goodwin:) "Trembling in new born pigs". Mr. A.C.Palmer: )

Professor J.D.Boyd: "Observations on the circulatory mechanism in the human placents". Dr. James W.Millen: "Experimental hydrocephalus".

4.30 p.m. Tea.

If a sufficient number of Members travel by train tickets will be obtained at the reduced party rate of 13/3d. return. The Railway has not yet issued its summer timetable but it is expected that the train will leave King's Cross at 9.27 a.m. This will be confirmed later to those who wish to travel by train.

Members wishing to attend the meeting should complete the form below and return it to me, at the above address, as poon as possible, preferably by June 1st.

CYRIL KESSON.

Honorary Secretary.

#### 300 YEARS SINCE THE FIRST INTRAVENOUS INJECTION



Not only was Sir Christopher Wren the architect of St. Paul's Cathedral — and of 51 parish churches — he was also an outstanding mathematician, physicist, meteorologist and physiologist. As a member of the "Invisible College" at Oxford, Wren performed numerous experiments in physiology and pharmacology as well as in other sciences. In 1656 he hit upon the then novel idea of injecting various substances — opium, scammony, wine etc. — into a dog's vein to study their effects. These experiments prompted the first attempts at intravenous medication and also suggested the idea of blood transfusion. The accompanying portrait of Wren by Godfrey Kneller is reproduced by permission of the Royal Society, of which he was President in 1680.

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# TRIANGLE

THE SANDOZ JOURNAL OF MEDICAL SCIENCE VOLUME II NO. 8 DECEMBER 1956

### CONTENTS

Original Articles	
Agammaglobulinaemia Prof. N. H. Martin, B. M	297
Radioactive Isotopes in Medicine Prof. Thomas J. Haley, M. D	306
The Ventricular Tachycardias M. Holzmann, M. D	313
DIAGNOSTIC TESTS Haematological Sex Determination	
W. Kosenow, M. D	321
Hypotensive Drugs in the Management of Pre-eclampsia	
LEADING MEN OF SCIENCE	327
Herbert Olivecrona	332
ABO Blood Groups and Disease	333
International Congress of Physiology	335

# TRIANGLE

#### VOLUME III NO. 2

#### JUNE 1957

#### WILLIAM HARVEY

"*Nature* her selfe must be our adviser; the path she chalks must be our walk; for so while we confer with our own eies, and take our rise from meaner things to higher, we shall at length be received into her Closet-secrets."

William Harvey, 1653

At ten o'clock on a bright spring morning, 17 April 1616, an unusually large company was assembled in the New Anatomical Theatre of the (not yet Royal) College of Physicians in London. The occasion was the second Lumleian Lecture of the annual course, given that year by a newcomer, the young physician from St. Bartholomew's Hospital and professor of anatomy and surgery. The manuscript of that historic lecture has, miraculously, been preserved. Summing up, late in the afternoon, the speaker said, "It is clear from the structure of the heart that the blood is borne continuously through the lungs into the Aorta as by two clacks of a water bellows to razse water." Few in the distinguished audience appreciated the significance of the simple analogy, spoken in crisp and homely English at the end of a long dissertation in Latin. William Harvey had made the first announcement of his discovery of the circulation of the blood.

The sixteenth century had given medicine not only a new spirit but a revolution in anatomy at the hands of Vesalius, Fallopius and Fabricius in Padua. Harvey's work in England in the first years of the seventeenth century laid the foundation of the new science of physiology. The events are not unrelated: for Harvey had studied medicine at Padua and worked with Fabricius there on the anatomy of the vascular system. He always acknowledged that it was the study of the valves of the veins that led him to the discovery of the circulation. But it was "searching out nature by way of experiment" over half a lifetime that enabled him eventually to convince the blind followers of Galen that blood did not ebb and flow like the tide.

Today, the tercentenary of his death on June 3, 1657, we acknowledge our debt to the father of the experimental method, the founder of modern physiology. We pay tribute to a man whose qualities of mind shed light in the early dawn of scientific medicine, whose strength of character buttressed him — and us — from those who "laid it to me as a crime that I had dared to depart from the principles of all Anatomists".

#### ORIGINAL ARTICLES

#### THE SURGERY OF STENOTIC VALVULAR DISEASE

#### PROFESSOR C. CRAFOORD

Surgical Department, Sabbatsbergs Hospital, Stockholm

#### PROFESSOR L. WERKÖ

#### 3rd Medical Service, S:T Eriks Hospital, Stockholm

The most spectacular development in the treatment of heart disease in the last decade has been in the surgical correction of structural deformities, both congenital and acquired. The use of new techniques like hypothermia and artificial pump-oxygenation, recent advances in anesthesiology and improved anti-inflammatory measures have made possible operations undreamed of only a few years ago. These procedures are nevertheless still in a developmental stage and their routine use for intracardiac surgery is confined to a few places.

Hypothermia involves lowering the body temperature to approximately 30° C by placing the patient in a specially designed "refrigerator" or simply in a tub of iced water. At this temperature the circulation can safely be stopped for about 6-8 minutes (by clamping the aorta and the venae cavae) and the interior of the heart is accessible for surgical exploration. Several surgeons have used this technique for simple intracardiac operations. There are, however, important disadvantages. Only a short time, not more than 10 minutes, is available, making the more complicated surgical procedures impossible. It is not known to what extent the heart and other organs tolerate the combined effect of lowered temperature and arrested circulation. Much more experimental and clinical research is needed before any definite judgment can be made of the role of hypothermia in intracardiac surgery.

The use of an artificial heart-lung machine has been studied for many years, but it is only very recently that it has become possible to employ such a pump-oxygenator safely in cardiac surgery. The problem is how to achieve rapid and complete O2 saturation and adequate CO<sub>2</sub> removal without too much shift in the pH of the blood. Avoidance of haemolysis and proper control of the coagulability of the blood are also important factors that need expert supervision. It is no wonder that only a few successful operations have been reported and that the mortality rate with this technique is high: too many complicating factors are added to the strain of a surgical procedure within the heart of a patient who is usually already incapacitated. It has, however, been demonstrated in several centres for cardiac surgery that operations within the heart using this technique are possible. It is our impression that the pumpoxygenator is more promising for the future than the use of hypothermia alone.

It is impossible to consider in detail all aspects of the surgical treatment of valvular disease. We will concentrate on a short discussion of the surgery of stenosis.

#### Pulmonary stenosis

Pulmonary stenosis used to be considered a relatively rare congenital lesion. The wide-



# TRIANGLE

THE SANDOZ JOURNAL OF MEDICAL SCIENCE

## HARVEY TERCENTENARY NUMBER

William Harvey					41
ORIGINAL ARTICLES					
The Surgery of Stenotic Valvular Disease					
Prof. C. Crafoord and Prof. L. Werkö					42
The Cerebral Circulation in Man					
Seymour S. Kety	•				47
Fainting					
Prof. Henry Barcroft					53
The Genetic Component in High Blood Pressure					
Prof. G. W. Pickering					59
DIAGNOSTIC TESTS					
Histaminic Cephalgia: Provocative Tests					
Bayard T. Horton			•.		66
THERAPEUTIC NOTES					
Intra-arterial Injection					
Prof. Robert H. Goetz					72
FROM OUR LABORATORIES					
Stress and Hypertension					81
ANNOTATIONS					
Percutaneous Left Ventricular Puncture in Diagnosis					84
Cancer of the Digestive Organs					84
LEADING MEN OF SCIENCE					
Daniel Bovet				•	85
SCIENTIFIC CURIOSITIES					
Matter and Anti-Matter					86
	-	-		-	

#### 214

### ULCERATION OF THE MOUTH IN CHILDREN 155

Dental ulcers .- The sharp edge of a broken or carious tooth may cause ulcerat Fore ulcerat injurie the mo Who produc of diag Corr corrosi are left BICENTARY · of 0 Drugs. John Sims, M.D., F.R.S. tion of to the superfi tongue is characteristically bismu situate which partici institu Alle mouth child i but so Leu acute

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particularly in certain usings are being auministered which may have a toxic action on the bone marrow.

# THE BICENTENARY OF JOHN SIMS, M.D., F.R.S. By LAURENCE DOPSON

It is strange that so little should have been written about John Sims, M.D., F.R.S., who was born 200 years ago, and that nothing, apparently, is to be found in medical journals, for Sims was a distinguished consultant, specializing in midwifery, as well as being a famous botanist and editor. A fairly full account of his life is given by Joseph J. Green in a paper "A Quaker Medical Trio named Sims and some account of that Family", which appeared in the Friends' Quarterly Examiner, 1913, p. 265. He should not be confused with John Sims (1792-1838), the pathologist, nor with James Sims (1741-1820).

The Sims's were a well-known Quaker family, who had mostly been tradespeople of some kind and who had suffered for their faith. The first of them to take up medicine was John's father, R. C. Sims, who graduated at Edinburgh in 1744, the title of his thesis being De vomica pulmonis; he practised for many years at Dunmow in Essex, where his surgery could be seen at least up to the 1914-18 war.

#### EARLY DAYS

John Sims, the only son of Dr. R. C. Sims, was born in the parish of St.

Mary Bredman, Canterbury, on October 13, 1740. He was educated at home and at the famous Quaker academy at Burford, near Oxford, kept by Thomas Huntley, an ancestor of the Huntley of Huntley and Palmers, the biscuit manufacturer. In 1770, when he was twenty-one, John Sims went to his father's old university to study medicine. He remained at Edinburgh until 1773, going to Leyden for the session 1773-4. Returning to Edinburgh in the latter year, he was admitted to the degree of doctor of medicine on September 12, 1774. The title FIG. 1.-John Sims (1749-1831), M.D., F.R.S., of his thesis was De usu aquæ frigidæ interno (Edinburgh,



physician and botanist. From an engraving in the Wellcome Historical Medical Museum.

1774) and he dedicated it not to one of the famous Edinburgh professors

February 1950. Vol. 164

(156)

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S.

157

(as many candidates did, from motives perhaps not always dissociated from hopes for the results), but to John Fothergill, the famous Quaker physician. Among the points which Sims made in his thesis were that a moderate drink of water, by extending the muscles of the stomach, improved their tone, and that cold water, owing to its quality of being a fluid, cleansed the digestive passages and dissolved and carried away waste materials. He discussed its use in various forms of illness.

#### LIFE IN LONDON

In 1779 Sims came to London and bought the practise of Thomas Cogan (1736-1818), of Paternoster Row. The fact that he acquired this particular practise indicates that he had already decided upon his specialty, for Cogan, a founder of the Royal Humane Society who had been a clergyman but took up medicine at the instigation of his prospective father-in-law, was primarily an accoucheur. Sims was admitted a Licentiate of the Royal College of Physicians of London on June 25, 1779, but although he became a leading obstetrical physician, he was not among the ten who were granted the licentiateship in midwifery by the College.

Sims was appointed physician to the Surrey Dispensary and to the Charity for Delivering Poor Married Women in their own Houses. The former was established in 1777 and was then at Southwark. Physicians holding consultations had the right of having their pupils in attendance; instruction was also given there to midwives. The Dispensary's activities were not confined to midwifery, and an early medical communication by Sims, published in 1784, is an account of a 40-year-old serjeant of the Middlesex Militia who died at the Dispensary from cancer of the stomach. The Surrey Dispensary was the earliest appointment which Sims held in London. It was some years later that he succeeded Cogan as one of the three physicians to the Charity for Delivering Poor Married Women in their own Houses. This organization had as its treasurer and dispenser Mr. Peter Sharp, chemist and druggist, of Bishopsgate Without; founded in 1760, it should not be confused with the similar Benevolent Institution for Delivering Poor Married Women in their own Habitations, started in 1779. A Fellow, one-time President, and for many years member of council, of the Medical Society of London, Sims was a member of the Society's Midwifery Committee.

Another facet of Sims' professional activities is shown by his being made the first consulting physician to the Royal Ear Dispensary, which was founded by Dr. John Harrison Curtis (1778-1856) at Carlisle Street in 1816, and was later moved to 10 Dean Street, Soho; it was under the patronage of the Prince Regent, and in 1904 was rebuilt as the Royal Ear Hospital at 42-3 Dean Street.

#### SOME PRIVATE PATIENTS

Dr. Sims had a number of distinguished private patients; one of them was

2

Mrs. Fothergill, wife of Dr. William Fothergill. He was the regular medical attendant upon John Henton Tritton, another distinguished Quaker, and his family; in 1791 Sims was paid an extra five guineas for inoculating John, one of the sons. Tritton was Sims' cousin and paid him an annual honorarium for his attendances. In her journal under date "Mildred's Court, Eleventh Month, 25th", 1802, quoted in her "Life" by Susanna Corder (London, 1853), Mrs. Elizabeth Fry wrote: "My cough has been so poorly that my husband called in Dr. Simms. I asked his advice about our one (their eldest daughter, born in August, 1801) being inoculated, he strongly recommended the cow-pox, and said he would undertake the care of her if we liked; I think highly of his judgement, and I believe it is our duty to avoid evil, both bodily and mentally".

It has been stated that Sims at first opposed vaccination, but later became convinced of its efficacy. Perhaps it would be more accurate to say that he adopted a cautious attitude towards it in the beginning. In a communication to the *Medical and Physical Journal* early in 1799, he said the facts and experiments of Jenner certainly called for careful inquiry, but he felt doctors should hesitate before recommending the introduction on a large scale of "a hitherto nearly unknown disease" and warned about "rash experiments upon our fellow creatures".

"If such hazardous experiments be not discouraged, there is some reason to fear that to the opprobium, the profession already lies under, of not being able to cure many of the existing diseases, will be added, that of having introduced new ones".

An editorial comment recognized the importance of the issues raised by pointing out: "From the above general statement, our readers will perceive that the great question respecting the utility of the cow-pox is at issue before the public". In a subsequent letter, however, Sims clarified his position:—

"I had no intention of declaring myself an enemy to the inoculation of this disease; my only wish was, to induce practitioners to pause a little, to obtain more experience of its utility, before it should be *generally* recommended".

Later he admitted:---

"... It must be acknowledged, that the experiments already instituted seem sufficient to decide that the cow-pox matter which has been used for inoculation is effectual in preserving the patient from any further attack of the small-pox, unless it should be true, which I deem very improbable, that cow-pox enables the constitution to resist the contagion of the small-pox for a certain length of time only."

It is an interesting indication of Sims' status that an editorial note to the first of these communications said: "The signature of the following communication . . . renders any introductory observations unnecessary".

There are two other references to Sims' private patients. One is in a letter by William Miller, another Quaker: "J. Wigham Tertius is under the care of Dr. Sims, who has advised him not to sit more than one meeting daily". Another is in the *Memoirs of Samuel Hoare*, also a distinguished Quaker. In 1798 Hoare was seized by a nervous affection. "Dr. Sims, his

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S. 159

old friend, attended him, and Dr. Reynolds was called in". A trip to Bath was advised.

Sims was called into consultation in two celebrated obstetrical cases those of Joanna Southcott and of the Princess Charlotte.

#### THE CASE OF JOANNA SOUTHCOTT

Joanna Southcott was a queer woman, born in Devonshire in 1750 who considered herself in the rôle of a latter-day prophetess. In 1792 she announced herself to be the woman referred to in Revelations, Chapter XII. In her "Third Book of Wonders" (London, 1814) Joanna again announced "the coming of Shiloh", declaring that "The Spirit" had told her: "This year, in the sixty-fifth year of thy age, thou shalt have a son by the Power of the Most High". Although she had ceased menstruating many years previously, Joanna was now convinced that she was pregnant. Her followers believed her in this as in all things, and are said to have showered upon her such gifts as "a mohair mantle, which cost  $f_{150}$ !!! splendid silver pap spoons, and a caudle cup (one shaped like a dove)" and "a magnificent Crib" which, "with its ornaments, decorations, bedding, &c. cost upwards of  $f_{200}$ !!!"

Not only her followers but also her medical attendant, Dr. Richard Reece, had no doubt about the cause of Miss Southcott's symptoms being other than as she claimed. Correspondence on the matter began in the public press in August, 1814, and it was said that the medical attendants were satisfied that the prophetess was with child-or more specifically, with Shiloh. In view of this, Dr. Sims, to make clear his position and opinion. wrote a letter which was published in the Morning Chronicle of September 5: "Several persons having expressed a wish that I should visit Joanna Southcott, that they might be satisfied what foundation there was for a report that she was pregnant, [he wrote] I consented to accompany one of her friends, a surgeon and accoucheur of experience, for that purpose, on the 18th of August". He describes in detail the examination which he made and the condition of the breasts. "I proposed to put my finger upon the navel, without any covering, which was permitted. This part I found sunk in, not at all protruded as in pregnancy". He could feel no movements of the foctus, although Joanna declared that she felt them clearly. Dr Sims gave his opinion as follows :----

"Considering all the above appearances, I did not hesitate to declare it to be my opinion, that Joanna Southcott was not pregnant; but was told that I was the first medical man that had seen her that was not perfectly satisfied of the contrary.

"I believe that her uterine organs are diseased, and that the breasts, as is usual, sympathyzing with those parts, have an increased quantity of blood determined to them".

He ended his letter with these words:-

"... Yet, before I conclude, I feel it right to say, that I am convinced that this poor woman is no imposter, but that she labours under a strong mental delusion".

Nothing was thought in those days of medical men discussing such a matter in the public press, and this letter—the only one which he wrote during the controversy—shows that Sims was sufficiently highly regarded in his profession to be looked to for an authoritative opinion in a difficult case —a regard justified by his views in this instance—that he was a thorough clinical observer, and, as is evidenced by the concluding paragraph, a kindly man.

His letter brought an instant rejoinder from Dr. Reece, which the editor of the *Morning Chronicle* refused to publish; it was, however, published in the *Sunday Monitor and Sunday Review*. In it Reece sought to argue that Sims was wrong in his conclusions. It is noteworthy that although other medical men, including Professor Assalini, Professor of Midwifery in Paris, saw Joanna Southcott, none of them, except Sims, instantly recognized and were convinced of the non-existence of the pregnancy.

Although Dr. Reece came to recognize the error of his earlier view, he could not convince his patient. Joanna Southcott, still believing that she had within her the Shiloh, died on December 18. She gave instructions that her body should not be opened before four days had elapsed, being certain that the corpse would remain fresh and that she would return to it. When the post-mortem examination was held, however, the "disciples" who they did not consider the prophetess to possess the most savoury odour". The examination was conducted by Dr. Reece, in the presence of Dr. Sims and Mr. Mathias. The result of the examination showed: "first, that there was no Shiloh; next, that there was no disease of the uterine organs, as imagined by Dr. Sims; thirdly, that the uterus, instead of being enlarged, was remarkably reduced". The omentum was extremely large and appeared to be one lump of fat. "Dr. Sims having expressed a wish to examine the state of the breasts, to satisfy himself on this point [wrote Dr. Reece] I dissected one of them, which shewed the fullness to proceed from an enlargement of the mammary gland as I had stated, and not from accumulation of fat, according to his opinion". This remark of Dr. Reece's would reflect more to his credit and professional acumen had he not been so stubborn in denying for a long while Sims' opinion on the vital issue, whether there was or was not a pregnancy. The necropsy failed to establish any organic cause for Joanna's death.

The case naturally aroused great interest, but at least Dr. Sims emerged with dignity and without loss of respect. One account says:--

"Dr. Sims did not fawn on her when living, and vilify her when dead . . . Had the whole college of physicians been in attendance on her, a better understanding of her case, we take on us to say, from our professional knowledge, could not have been given. In the opinion Dr. Sims gave of herself and her state of body, he shewed the goodness of his heart as a man and a Christian. And, had all her attendants had the same penetration and integrity, she would have, in all probability, been delivered long before her death; not of a child, but of the delusion".

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S. 161

The danger of applying logic to medical matters is shown by the opinion expressed to Joanna by a lady who saw her after Dr. Sims had called, and assured her he was wrong: "I have had eleven children, and the objection he mentioned happened to me with every one of them", she told the prophetess hopefully.

#### DEATH OF THE PRINCESS CHARLOTTE

It is unfortunate that the other famous case in which Sims was called as a consultant also ended tragically. It was that of the Princess Charlotte. The Princess seems almost to have had a foreboding of what was to come, for a month before her confinement, she wrote a letter to her mother which contained such phrases as "I fear less to die than to live".

Sir Richard Croft, a colleague of Sims at the Surrey Dispensary, was in charge of her confinement, and three weeks before it was due to begin, he went down to Claremont to be with the Princess. What followed is detailed in the following memorandum (Royal Archives, Georgian Papers 50067), which His Majesty the King has been graciously pleased to allow me to reproduce for the first time:—

"The Labour of Her Royal Highness Princess Charlotte began at Seven oClock on Monday Evening the 3d of November 1817, and terminated at Nine oClock on Wednesday Evening the 5th of Novr, in the birth of a Still-born Male child—The Labour therefore continued during fifty hours—The exertions of the uterus were feeble throughout the greater part of the Labour, but during the last few hours were stronger, and more satisfactory—As the Labour was very tedious, Dr. Sims was sent for by Sir Richd Croft on Tuesday Evening, and arrived at Claremont about Two oClock on Wednesday morning—He concurr'd entirely in opinion with Sir Richd Croft respecting the situation of Her Royal Highness, and that as long as the Labour was making progress, altho' slowly, the conduct of it should be left to Nature— Instruments were at hand to assist the Uterus, if it were thought adviseable to employ them—During the whole of this tedious Labour, Her Royal Highness was cheerful, look'd well, and Her pulse was good—She often walked about the Rooms, and was very little on Her bed— "The Child was born, as before mentioned, at Nine in the Evening, and as

"The Child was born, as before mentioned, at Nine in the Evening, and as upon examination, an hour-Glass contraction of the Uterus was discover'd, Sir Richd Croft took away, with the concurrence of Dr. Sims, the afterbirth about twenty minutes before Ten—Her Royal Highness appear'd quite as well as women commonly do after so tedious a labour, and much better than they often do under such circumstances, till about a quarter before Twelve at night—Her Royal Highness then complained of some sickness and singing in Her Ears—Soon after this Her Royal Highness threw up from Her Stomach a little fluid, which seem'd chiefly some camphor mixture, which She had swallowed—She then became a little irritable, and began to talk somewhat too much—About a quarter before One Her Royal Highness complained of great uneasiness in Her Chest, and breathed with great difficulty: Her pulse was very feeble and irregular, and She became extremely alarming state continued and kept increasing till half past Two in the morning, when Her Royal Highness expired—Her mind was entire throughout the whole of this dreadful attack—

The Child had been born dead, but appeared not to have been dead long—The most strenuous efforts were made to reanimate it by means which had been previously provided, but they were unavailing—Some circumstances had render'd it probably that the Child would be still-born, and therefore every means of recovery were in readiness".

Novr 9—1817

M. Baillie Richard Croft Jn<sup>o</sup> Sims"

Such were the terrible sufferings of this girl of twenty-one. It was Sims who made the "most strenuous efforts" to revive the child. Sims added the following postscript to the memorandum:—

"As some of the above circumstances could not come under my immediate observation, not having seen her Royal Highness till symptoms of danger occurred, I beg leave to add, that on my arrival at Claremont, Sr. Richard Croft proposed to mention it to her Royal Highness and to introduce me; but as the state of the labour, at that time, precluded all thoughts of having recourse to any artificial assistance, both Dr. Baillie and myself thought that this was not only unnecessary but unadvisable. And as the labour continued from that time to the end progressive, there was no period of it, at which a question about the propriety of using instruments could have been entertained.—I was in the adjoining room the greater part of the day, and was continually informed of the state of the labour, and could have seen her Royal Highness, whenever it had been thought advisable. When it was found that the afterbirth did not come away favourably, I was perfectly satisfied with Sr Richard Croft's representation and quite agreed with him in the propriety of removing it. I was at that time still engaged in fruitless efforts to reanimate the child; and the introduction of a stranger, at that moment, to the royal patient, as it appears to me, was particularly objectionable.

#### Jnº Sims"

In the collection of manuscript letters and other material relating to Mathew Baillie, in the Library of the Royal College of Surgeons of England, the first part of the memorandum above, which is stated to have been "written for the satisfaction of the Royal Family", has been copied out by Mrs. Baillie. In this copy some parts of the original have been omitted and there are some textual variations, but the additional information is given that the child was perfectly formed and weighed nine pounds, whilst attached to the memorandum (on which only Baillie's signature is given) is the following note, stated to have been found in Baillie's own handwriting:—

"In looking back very often upon this most distressing event I am convinced that Sir Richard Croft did all that the melancholy case admitted of, and that the Princess Charlotte's life would not have been saved by any different treatment".

The controversy aroused by the death of the Princess was considerable. Although the Prince Regent assured Sir Richard that he was perfectly satisfied with his conduct, most blamed him for allowing the Princess to remain in labour for so long without attempting to terminate the birth. On February 13, 1818, Sir Richard Croft was found dead. He had shot himself.

Again it shows the regard in which Sims was held as an obstetrician that he should have been called in when complication arose and that he should so clearly have been appealed to by Sir Richard and Dr. Baillie as the superior authority. One account says of the summoning of Dr. Sims:—

"This, as a precautionary step, is honorable to Dr. Croft, and will ever shield him against a successful imputation of timerity".

#### 162

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S.

Criticism has been raised against Sims because he did not go in to see the Princess, yet signed bulletins saying she was progressing favourably. "How this gentleman", declared Lady Anne Hamilton, "could allow his name to be thus affixed to a declaration, of the truth of which he was totally ignorant, we do not know, but the time-serving press said 'That Dr. Sims being unknown to the Princess, his appearance in her chamber might have alarmed her'". As has been seen, it was Sims himself who took this view, which was thus not an invention of the newspapers—and she also rather destroys her case by being too violent and accuses Croft of having poisoned the Princess on instructions.

Sims, with Baillie and Croft, followed the remains of the Princess to her grave at St. George's Chapel, Windsor. One wonders whether the outcome of the whole affair might have been happier had Sims been summoned earlier. As it was, this tragedy brought about the reign of Queen Victoria.

#### LITERARY WORK

At the same time as he was involved in these two important midwifery cases, which show that he was actively engaged in practice, Sims was editing the celebrated Botanical Magazine. He became editor soon after the death in 1709 of William Curtis, the founder editor, although his name first appeared on the title page in 1801. That the editorship of a leading scientific journal of this kind, the circulation of which exceeded 3000, was no sinecure can well be imagined, and is shown in the correspondence in connexion with it preserved at the Library at Kew Gardens, and in letters by Sims in the manuscript collections at the Botanical Library of the Natural History Museum and the Linnæan Society of London. It is interesting to note from these letters that Sims in no way rose above the failings, or perhaps one should say had to contend with the same difficulties, as other editors of recent times, for one finds queries about what has happened to material sent for publication and when such-and-such note will appear. An editor, particularly of a scientific magazine, has to be tactful. In a letter dated November 26, 1806, and quoted by courtesy of the Director of Botany, British Museum, Sims told Mr. Robert Brown, an eminent botanist, that people who sent new flowers to be drawn were apt to be offended if these did not appear fairly soon and would at another time send them to a rival journal: "In order not to give offence in this way I am often in some degree obliged to publish drawings, which I otherwise wish to delay". In another letter (to Dr. William Swainson, dated May 8, 1820, now in the possession of the Linnæan Society) Sims points out that as he is personally responsible for the nomenclature and the accuracy of the drawings, he may wish to see actual specimens, as well as drawings. As editor, Sims had his troubles also in respect of the circulation of his magazine. From the 172nd issue he increased the number of plates in each part to four, and later he increased the number to eight and the price to 3s. 6d. The rise in price and the

163
appearance of rival journals led to an immediate drop in circulation, sales falling by a half and later by more still. It was a grim prospect, but ultimately the *Botanical Magazine* weathered the storm, and its publication continues to-day, having been uninterrupted since 1799.

Sims undertook the editorship under the will of William Curtis, whose friend he had been for many years-probably they were schoolfellows together. Mr. W. Hugh Curtis, in his book "William Curtis, 1746-1700" (Winchester, 1941), explains that Curtis made Sims one of his executors: as such Sims's name appears in an agreement of January 16, 1815, by which George Graves became part owner of William Curtis's Flora Londinensis. In addition to the Botanical Magazine, Sims also edited, with Charles König, the Annals of Botany, of which two volumes only were published (London, 1805 and 1806); it is an interesting publication which includes historical articles. The combination of an expert interest in botanical matters with a medical practice was quite common at this time: John Coakley Lettsom, founder of the Medical Society of London, had a botanical garden at his country house at Camberwell. and it was he who introduced the mangel wurzel; whilst John Fothergill formed a large botanical garden at Upton. Sims probably inherited his interest in botany from his father, who was passionately fond of gardening.

No source that I have discovered has any details of Sims' medical publications; the *Surgeon General's Catalogue* only gives his degree thesis. He did, however, communicate a number of papers on medical matters, and a list of the ones which I have been able to find is given in an appendix to this article. In addition, Sims probably wrote the biography of William Curtis in the *Gentleman's Magazine*, 1799; it is said that Curtis left Sims the memoirs of his life. Sims delivered the Oration to the Medical Society of London during his year as President (1783), but this does not seem to have been published. A list of his botanical papers appears in J. Britten and G. S. Boulger's *Biographical Index*.

#### PERSONAL LIFE

Not a great deal is known about Sims' personal life. He married about 1790, and because his wife was not a member of the Society of Friends, he was compelled, under the rule then existing, to leave the Society. The same choice between love and creed had to be made by Lord Lister, when he had to leave the Quakers on marrying Agnes Syme, who was an Episcopalian. Sims, however, continued to move in Quaker circles and, as we have seen, many distinguished members of this sect were his patients. William Miller's letter of 1821 refers to Sims having "lately laid aside his cockt hat"; this may mean that he had been rather more ostentatious in his dress than strict members of the Society could altogether approve and that he was now adopting or reverting to the more severe style of dress. That he was a "clubbable" man is shown by his membership of societies of medical men.

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S. 165

whose meetings were more convivial affairs in those pre-Bevan, pre-Strachey days. The Society of Physicians, for example, of which select group he was a member, met "once a fortnight, on Wednesdays in the evening, at Old Slaughter's Coffee-house, for the purpose of conversing on the prevailing diseases, &c. and once a quarter they dined together at the Crown and Anchor Tavern in the Strand"; Old Slaughter's Coffee House seems to have been a favourite place for medical gatherings, for the Society for the Improvement of Medical Knowledge, founded in 1782, "for the purpose of collecting useful essays and observations for publication", also met there once a fortnight, with Sims among the company, and this Society, too, had its quarterly dinners.

John Sims was a founder member of the Linnæan Society of London, and in 1816 he presented to the Library of this Society a particularly fine edition of Leonhard Fuchs' *De historica stirpium commentarii isignes* (Basle, 1542). He was admitted a Fellow of the Royal Society in 1814.

Sims was very early interested in the idea of forming a Society for Relief of Widows and Orphans of Medical Men, taking part in the early meetings in 1788 in connexion with it; his name appeared in the first advertisement as one of the four treasurers. In September, 1807, the Society had been experiencing difficulty in getting together a sufficient number of directors to transact business. Mr. James Ware, one of the Vice-Presidents, conceived that they might be more likely to come at the appointed hour if their fares were guaranteed, and he gave  $\pounds_{100}$  of Navy 5 per cent. stock for this purpose; the Society doubled the amount, and Dr. Sims gave  $\pounds_{10}$  also.

"I was first led by accident to the discovery of the extraordinary power of the pure ammonia in correcting acidity in the stomach, over other alkaline substances. My wife being seized one night with a severe heart-burn, I arose with a view of getting her some magnesia; but not being able to find any, and being desirous of procuring her some immediate relief, I expected to obtain this by any alkaline substance, and not meeting with any but the water of pure ammonia, which I happened to have by me, I administered twenty drops in a glass of water; the relief was instant and more complete than she had ever experienced from taking magnesia".

Ann Sims was seven years younger than her husband. She bore him six children, four girls and two boys. One of the boys died in infancy; the other graduated M.B. at Cambridge in 1810 and became M.D. of that University in 1823. It is significant that Sims, the fashionable London physician, sent his son to one of the old universities in England and not to his *alma mater*; and further, that when this son, having qualified as a doctor, forsook medicine for religion, he should become a priest in the established Church of England. In a letter dated Dorking, September 3, 1828, John Sims writes of this son:—

"Courthope goes on preaching &c at two parishes every Sunday and goes through the duties of his profession *con amore*. It seems to suit him much better than the one he has deserted". The letter adds that Courthope would soon be going to Fittleworth, "for which parish he was originally ordained". Green states that he became Rector of Petworth, also in Sussex, and died at Undercliffe, Isle of Wight. The present Rector of Petworth, Rev. Harold Godwin, informs me, however, that Courthope Sims' name does not appear in the official list of rectors. Courthope was, however, curate at Fittleworth between 1829-32; the first funeral he took there was on December 19, 1829, and the last on April 4, 1832. His own burial entry gives his age as thirty-eight, and his abode at the time of death as Ventnor.

Incomplete lists of Sims' London addresses have been given, but the following, supplemented by reference to original letters, is the full number: Paternoster Row; 31 New Bridge Street, Blackfriars; 67 Upper Guilford Street, Bloomsbury; 37 Wimpole Street.

One of the Kew letters must have caused Sims a little misgiving as he read it, for the writer, Thomas Guest of Sierra Leone, announces his intention of sending to England "a monstrous great Pelican".

"The Fellow is quite tame, and I hope to preserve him during the rains: He eats Fish, Flesh, Fowl, or any thing that comes in his Way; he devours a great Deal, and I am sometimes very much puzzled to get victuals for him. I suffer him to stroll about, and he is become the Terror of all the Women & Children in the Colony; if any of them are going by with Meat or Fish, and he sees them, he is after them immediately, and ten to one but he gets it".

#### However, Guest hastens to add:-

"I am aware you cannot keep him in Bridge Street, but I think among your Friends, there are some who would be glad to have such a Bird. Sr Joseph Banks probably".

These letters to John Sims show that in connexion with the *Botanical Magazine* he carried on a correspondence with people in all parts of the world. They also show that he could write shorthand. Several letters contain endorsements by Sims in shorthand, and one of the letters, from William Grover (21 February, 1825), states:—

#### "My dear friend,

Enclosed I hope thee wilt receive safe the System of Shorthand, as proposed".

I have submitted some copied examples of John Sims' shorthand to Mr. William J. Carlton, an expert on the history of shorthand, but unfortunately they were too fragmentary for him to identify. It was, however, definitely not Byrom's or Taylor's (two of the most popular pre-Pitman systems). It is also impossible to identify the "System of Shorthand" referred to by Grover, but if it was a different system from the one that Sims was using, it cannot have impressed him, for apparently he continued with the same outlines. It does appear that the shorthand which John Sims wrote was the same as that used by William Curtis, of which an example is illustrated in W. Hugh Curtis's book, but Mr. Carlton warns me that the shorthand systems of this period often bear a superficial resemblance to each other.

#### CLOSING YEARS

The letters at Kew concern the *Botanical Magazine*, and when they are from medical men, make no mention of purely medical matters. The letters from William Fothergill, however, give some interesting glimpses of the life in retirement of this physician and of his interests:—

#### Carr End, Yorkshire. February 26, 1819.

"My dear Wife has for several months, been nearly quite confined to her room, yet on the whole she is something better, and I hope will again be restored to her usual share of health when that season arrives, inspiring 'Vernal delight & Joy'. "We have had the finest autumn and winter hitherto, I ever remember. Our little

"We have had the finest autumn and winter hitherto, I ever remember. Our little garden has never been without a variety of flowers, & we are at this moment quite gay with a profusion of crocus's, winter aconites &c... During the time you were enveloped in cold gloomy fogs, we were enjoying bright sunny days, and the frost quite moderate".

A letter of October 30, 1826, tells of the arrival of a number of issues of the *Botanical Magazine:*—

"which indeed is to me & my wife and daughters a high treat; lock'd up as we now are in all the rigour of winter, we are enjoying the beauties of Flora, while sitting at our Fire-side. . . . My own health as well as that of my wife (thy old patient) continue much as when I wrote last, but the hand of time is upon us, and we must expect to feel the effects of increased years. I have recently entered upon my 78 year, & I hope I am endeavouring to be thankful that my infirmities are not more and greater".

In 1826, at the age of 77, John Sims resigned the editorship of the *Botanical Magazine*. He retired to Dorking, in Surrey. In a letter which he wrote from there to König on March 4, 1829, and which is now at the Natural History Museum, it appears that there was a question of his herbarium and library going to the new London University.

"What occurs to me as the best plan of disposing of my library and herbarium would be to submit it to a valuation and if the London University will agree to be the purchaser I will consent to deduct a fourth part of the price at which it may be valued.

"My library consists of most of the old botanical authors but not many of the expensive coloured works in a perfect state . . . "

The offer evidently fell through, for the library and herbarium were sold by auction by Mr. Thomas "at his Great Room, 38 King Street, Covent Garden, on Tuesday, May 26th, 1829, and following day, at Twelve for One o'Clock very punctually". The catalogue of the sale, a copy of which is at the Natural History Museum, lists 722 lots and states that in addition to the "choice Botanical Library" the collection included "a small misscellaneous Library, in which will be found Fowler's mosaic pavements, and a variety of Works of the best modern Authors". The herbarium is now at Kew. In a letter to Alexander McLeay, on the latter's departure in 1825 to be colonial secretary in New South Wales, it is evident that Sims had become rather aware of the declining years, for he writes:—

"I am very sorry we are like to lose you soon and at my time of life I can hardly expect to live to see you on your return".

When he went to Dorking, the effect of the three score years and ten was upon him, as is rather pathetically borne out by two passages in letters to his friend Charles König. The first is dated Dorking, September 3, 1828:—

"... It would give me particular pleasure to see you, but I grow so feeble that I am able to go but a very little way from home and much question if I shall ever be again equal to undertake a journey to London, though I hardly like to think so, as I much wish to get another sight of some old friends, of which you stand among the foremost. I thank God my eyesight continues pretty good and I find amusement in reading; but writing has become difficult ... "

Despite the difficulty in writing, of which he complains, this letter is in his own hand and the words are firm and clear. A few months later, however, he had evidently got past writing altogether, for the next letter, dated Cotmandene, Wednesday, March 4, 1829, has been dictated and is written out by another. In it, Sims says:—

"Mrs. Sims and my family are all in pretty good health and as to myself I have little to complain of but an increasing debility which is now so great it is not at all probable I shall be able to go to London again so that I shall feel the more gratified by any occasional visits from my friends".

It is probable that Sims chose his place of retirement to benefit his failing health. Of the situation of Cotmandene, a guide book of 1865 says:-

"This emminence overlooks the Town and embraces views of Denbies, Box Hill, Norbury Park House, and Camilla Lacey. This elevation has long been proverbial for the superiority of its situation, and the air is fresh, breezy and healthful".

Another guide book also describes it as "one of the healthiest parts of the town".

It was in this pleasant spot that John Sims, M.D., F.R.S., died, in his 82nd year, on February 26, 1831.

Surprisingly, very little attention seems to have been paid to his passing, and only brief notices appeared in the *Gentleman's Magazine* and *Annual Register*, and none in *The Times* or the *Lancet*. Previously the place of burial of John Sims has been a mystery. Green stated he could find no indication of where either John Sims or Mrs. Sims was buried. The Vicar of Dorking, Rev. K. D. Evans, kindly searched the Register at Dorking for me without result.

In fact, John Sims was buried on March 5, 1831, at Fittleworth in Sussex, where his son Courthope was curate. The service was conducted by the Rev. Robert Tredcroft, the incumbent, who was at this date styled vicar. It was in the same churchyard that Courthope Sims was buried on November 8, 1833. Green states that Courthope's widowed mother died at

#### BICENTENARY OF JOHN SIMS, M.D., F.R.S.

the Rectory House, Petworth, shortly after her son's death, on April 19, 1835, and there is a record of the burial at Fittleworth of Ann Sims "from Petworth" on April 28, 1835. She was aged 79 and the burial was conducted by Rev. C. Dyson, curate. I am indebted to Rev. J. E. Dieterlé, Rector of Fittleworth, for this information.



FIG. 2.—The church of St. Mary the Virgin, Fittleworth. In this Sussex church, where his son, Rev. Courthope Sims, M.D., was curate, the burial service of John Sims, M.D., F.R.S., was held. Under an old yew tree in the churchyard are buried John Sims, his wife Ann, and his son Courthope.

John Sims was at least not unremembered by his botanical friends. Robert Brown commemorated his name in the Mexican genus of compositæ Simsia; he is also commemorated by the plant Simsia amplexicaulis.

The only memorial to the Sims family is a small stone surmounted by a Maltese cross. It stands under the old yew tree in Fittleworth churchyard, and on it can be read just this:—

> J.S. M.D. 1831 C.S. M.D. 1833 A.S. 1835

160

On either side of this headstone are two others, small, overgrown, and nearly buried in the earth until the Rev. I. E. Dieterlé had them dug out. One proved to be the headstone of Courthope Sims and is broken, which may indicate that the stones were shifted when the nave was taken down in 1871. The other is inscribed:-

> IS Born 10th Novr 1749 Died 26<sup>th</sup> Feb<sup>y</sup> 1831

#### APPENDIX I

#### MEDICAL PAPERS BY JOHN SIMS

The following are the signed medical papers or communications by John Sims the publication of which I have been able to trace; the general index to the first volumes of the Medical and Physical Journal wrongly lists his contributions under the name of James Sims, whilst the paper read to the Medical Society of London in 1788 on "A passage from the Ancient Greek authors on Hydrophobia" by a "Dr. Sims", which Green thought might be by James or John Sims, was read by the former.

"An account of a cancerous affection of the stomach". Medical Communications 1782-4 (1784), **I**, p. 421. "Letter on the Cow-Pox". Medical and Physical Journal (1799), **I**, p. 11.

Further letter on the same subject. *Ibid.*, p. 230. "On the use of pure ammonia in pregnancy". *Medical and Physical Journal* (1799), 2, p. 205.

"On the Cæsarean operation". Ibid., p. 433.

"An account of a ruptured uterus". Medical Facts and Observations (1800), 8, p. 150. Report and extracts of this paper are given in London Medical Review (1800), 3, p. 372.

"On delivery in certain difficult cases of arm presentation". Medical and Physical Journal (1802), 8, p. 481.

In addition, Sims communicated to the Society of Physicians "An account of expoliation of the internal surface of the tibia, removed by the application of the trephine" by Mr. Thomas Whateley, Medical Communications (1790), 2, p. 386, whilst a paper by Mr. Whateley ("Cases of prolapsus uteri") contains an account of a support for a case of prolapsus uteri, designed by Dr. Sims (Medical Facts and Observations (1800), 8, p. 172).

Sims' botanical papers are listed in J. Britten and G. S. Boulger's Biographical index of deceased British and Irish botanists (2nd edition, London, 1931).

#### APPENDIX II

#### MANUSCRIPTS OF JOHN SIMS

The following list is given to supplement the incomplete reference in Britten and Boulger :-

Natural History Museum, British Museum. The Botanical Library possesses four letters, three by Sims and one to him.

Linnæan Society of London possesses two letters by Sims.

Kew Gardens library has a collection of letters to Sims, but not by him, and also notes of a botanical paper.

Permission to quote from these letters is gratefully acknowledged.

#### The London Barbers.

214

Under the spreading tree of Time The Guild of JBarbers stand;

A "grand old" Company are they, As any in the land;

And their ancient right and privileges Are from the King's own hand.

Their record's honest, true and long, Six hundred years they span;

Their charities are kind and large, They give where'er they can,

And they look the whole world in the face For they owe not any man.

Year in, year out, by ancient right The Masters come and go,

And many keep their names alive By the bounties they bestow;

Like Ferbras, Banckes and Atkinson Whose deeds the records show.

And the Livery coming here to dine Pass in at the open door,

They love to see the old Court Room And pledge the toasts once more,

Being sure that whilst they feast themselves, They've not forgot the poor.

For centuries their rights they've held, The **Barber-Surgeons** old;

And centuries yet to come may they Those rights intact uphold;

Keeping up their ancient Hall,

And as **Barbers** brave and bold, To save their birthright for their sons,

And leave it none the worse,

They needs must think on those who'd spoil The funds which they disburse,

But with their strong right hands they'll guard Their property and purse.

Aiding-befriending-welcoming, Onward the **Barber** goes :

Each month will see some poor relieved, Each year some good work shows; Something attempted, something done,

Thus Barbers earn repose.

SIDNEY YOUNG.

(With many apologies to the shade of H.W.L.)

November, 1884.

The Urinary Antiseptic\*\*

214

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Mediæval Diagnostic Table for the Interpretation of the Urine.

> liberates formaldehyde in an acid or alkaline medium agreeable of administration well tolerated

'Helmitol' is issued in tablets of 5 and  $7\frac{1}{2}$  grains, and in powder form (bottles of 1 oz)



De Sieckgens zyn feer verblijt: Als fy fien de Copper tyt : om te maken de kanne: man De Trommel fy dan reppen : met de clappen jy cleppen : en fpelen oock met lanne; man Gen et excudebat Lepers on the March

[Vischer, 1608

can differentiate between various sounds, and it was seen that, in general, an octave difference in tone could easily be distinguished. The best animals (and even fishes show strong individual characteristics) learned to differentiate between a fifth, a third, and even the small third doh-fah with certainty. It was possible to get a fish to respond correctly to three different feeding sounds, and also to warning sounds interposed between them. Further, the investigator reports, it was astonishing to notice how a fish was able to pick out the feeding note from a conglomeration of several notes. This reaction may be looked upon as genuine hearing, but from the physiological standpoint the keystone of the arch regarding the function of the cochlea is missing in that it is impossible to say whether this perception is brought about by the inner ear, although it contains no cochlea, or whether it depends upon an excessively delicate sensitiveness in the skin of the body.

# THE UNCLEAN—A SURVEY OF LEPROSY

HE history of leprosy would appear to be as old as the history of the human race. The Bible has made us familiar with the term leper, and at an early period of Jewish story different forms of the disease were recognised, while Moses realised the necessity of segregating those infected. In Greece also the affliction seems to have been universally familiar; it is referred to by Hippocrates and Aristotle, and the place-name of Lepreos or Lepreon in Elis may be taken

to indicate the establishment of a leper colony in this neighbourhood. A similar example nearer home, and of a later date, may be found in the pleasant suburb of Edinburgh—Liberton, a contracted and embellished form of the sinister "Leper Town."

Reports on the first appearance of leprosy in Italy must be interpreted with caution. Pliny holds that the disease was introduced by Pompey's legionaries, but this is contested by Plutarch, who holds that a form of elephantiasis endemic in Italy long before that date was connected with leprosy. Little information on the subject has survived from



Hun Bathing a Leper

214

later periods of antiquity, and it is known that several scientific works concerning leprosy have been lost.

The physicians of Imperial Rome had apparently a somewhat hazy conception of the leprosy as a clinical entity. Among the more careful descriptions of the condition is that of Rufus, who differentiated "lepra mutilans," and compared its hopeless prognosis to that of cancer. Equally excellent are the descriptions by Philumenus, about A.D. 50. Aretæus records the drugs used against leprosy by the Celts, and, Eleuthereus, the Bishop of Doornik, who died in 523, is reputed to have cured a leper. At the time of Gregory of Tours, the middle of the sixth century, leper houses are said to have been in existence in France,



Leprosy in the Triumphal March of Death

[Andreas di Cione, † 1376

and among the Langobardi the disease was certainly of no rare occurrence. In the seventh century King Rothar issued an edict for the isolation of lepers. Among the Franks during the rule of Pépin (the middle of the eighth century), leprosy in a husband was considered a ground for divorce, although not recognised by the Church. The increase of leprosy in Spain was attributed by the Spaniards to the Arab inroads in the eighth century.

During the following centuries references to leprosy become less frequent, but Professor H. Haeser, in his textbook of the *History of Medicine*, does not think that this silence may be interpreted as meaning or lessening of the incidence of infection.

In the eleventh century, however, there was a great increase in the

138

214

spread of the disease, probably owing to the Crusades. Leprosy became such a common affliction among the Crusaders that special lazar houses had to be established, and then arose the Order of the Knights of Lazarus, whose duty was to care for their leprous comrades. The scourge reached its zenith about the year 1300, and thereafter declined gradually, until towards the end of the sixteenth century leprosy had practically lost its character of an endemic disease in Europe.

Every case that was diagnosed as leprosy in the Middle Ages cannot, of course, be accepted as being actually that disease, and doubtless many cases of tuberculosis, perhaps also syphilis, received the general label.

The high infectivity of leprosy has been recognised since the earliest times, hence the building of the leper asylums. In Spain these houses were first established by the Cid in 1067, and were called leprosorias, maladrerias, malanterias, ladrorias, and messellerias; in Italy the lazar house was a lazaretto, and in Germany a Siechenhaus.

At the time of Louis VIII, France, then only half her present size, possessed some 2,000 leper houses, the total in Europe being about 20,000.

In Germany, in addition to these large leper colonies, many villages also possessed so-called "isolation huts." The diagnosis of leprosy was confirmed by a "jury" of sworn-in citizens, and that many conflicts of opinion and general disagreement arose, as must have been inevitable. Opposing views often led to stubborn and protracted litigation, as is shown in the following case, fought between the town of Recklinghausen and the medical faculty of the University of Cologne. The town of Recklinghausen in 1527 sent a leprosy suspect, named Moseler, to the guardians of the Cologne leper house, but Moseler, instead of going to hospital as he was ordered, went first to consult the Medical Faculty of Cologne. This body considered the diagnosis of leprosy to be incorrect, and gave Moseler a certificate to that effect. The town of Recklinghausen, however, contested the authority of the Faculty, and a wearisome fight ensued. The towns of Wesel, Dortmund, and Essen joined issue, as they, too, sent their leper suspects for diagnosis to the Cologne leper house, but finally the town of Cologne took sides with the professors, and forbade the leper house guardians to assume diagnostic powers in disease, powers which were vested solely in the Medical Faculty.

The lepers wore a special clothing, usually a black cloak, bearing the town arms on two white bands on the breast or on the hood. Each carried a bell—later a clapper—to give warning of his presence, and a staff with which to point to any object he wished to have.

In France the segregation of a leper was accompanied by the solemnisation of the burial service by the Church. The priest adjured the afflicted one to avoid churches, mills, bakeries, springs, and wells. Finally, as at a burial, earth was thrown on the feet of the leper, who thereafter was considered as belonging to the dead.



Eramination of a Leper

Despair drove many of the lepers to form conspiracies, in which the Jews are said to have had a hand. In any case, in the time of Philippe le Bel large numbers of them were burned alive. But not everywhere was the lot of the leper an entirely unhappy one; they were authorised to beg, and many did so well at it that healthy individuals often masqueraded as outcasts to earn an easy livelihood. In fact, the town of Haarlem did quite a trade in hiring out lepers' uniforms, which were tantamount to so many begging licences.

Leprosy first died out in Italy, then in France, and lastly in Holland and Northern Germany. By the year 1490 leprosy was so rare in Italy that the Order of

the Knights of Lazarus was disbanded and absorbed in that of St. John. The disease seems to have persisted longest in Switzerland.

To-day in Europe leprosy is seen in a few isolated regions only: in Iceland, Norway and Sweden, parts of Russia, in the Baltic lands, particularly about Dorpat and Riga, and in certain provinces of Spain and Portugal. In Great Britain, Osler states, the cases are all imported.

## AVERTIN COMBINED WITH LOCAL ANÆSTHETICS

N an article on recent progress in anæsthesia considered from the surgeon's standpoint, published in a current issue of the *British Medical Journal*,<sup>1</sup> Mr. Basil Hughes, Surgeon to the Bradford Municipal General Hospital, discusses the use of avertin as a basal anæsthetic in conjunction with other anæsthetising substances. Avertin is tri-brom-ethanol, and as "avertin fluid" is combined with amylene hydrate to form a stable solution capable of being dissolved in a 3 per cent. strength in distilled water. The dosage of avertin is calculated

<sup>1</sup> "Progress in Anæsthesia from the Surgeon's Standpoint," by Basil Hughes, D.S.O., M.A., M.B., B.Ch. (Camb.), B.Sc. (Lond.), F.R.C.S., *Brit. Med. Journ.*, May 18, 1929, p. 897.

## 'BETAXAN' IN DELIRIUM TREMENS

214

Specific treatment for acute alcoholism.

FROM time to time reports on the value of vitamin  $B_1$  have appeared and Kiene and his colleagues (*J. Amer. med. Ass.*, June 1st, 1940, p. 2191) have recorded an interesting series

of controlled cases treated with this vitamin. Each patient included in the series complained of vivid hallucinations on admission, and gave a history of periodic over-indulgence in alcohol, while the consumption of alcohol had been maintained up to the time of admission. Five patients were given 4 oz. of whisky every four hours, 50 mg. or more of Betaxan intravenously every twenty-four hours, and a diet rich in vitamin B<sub>1</sub>, while the five controls were kept on the same diet but given neither Betaxan nor whisky. Although the five treated cases were still drinking large amounts of whisky, they improved much more rapidly than the controls, who recovered in an average of 4.2 days as against 2.4 days for the former. In the treated cases, the hallucinations, restlessness, and motor activity diminished more rapidly, and continuous baths or chemical restraint were rarely required. The first two patients had albumin and hyaline casts in the urine, but these disappeared within seventy-two hours of the commencement of treatment, and it was thought that vitamin  $B_1$  had a direct therapeutic action on the kidneys. A typical case was as follows :

A male patient aged thirty-one was admitted to hospital because of hallucinations. Physical examination disclosed no abnormalities, but he complained of seeing rats chewing paper and of strange animals walking in and out of the window. He also gave an account of seeing the World War re-enacted; telling how women were fighting and 50,000 had been shot down, and was confused and disorientated. Four oz. of whisky were administered every four hours and 25 mg. of vitamin  $B_1$  given intravenously twice daily. On the second day in hospital he had recovered from the "horrors" and after a few hours on the third day during which he appeared intoxicated he recovered completely. Next day he was discharged from hospital.

From the results obtained, it appears that vitamin B, plays an important part in the ætiology of delirium tremens and the authors contended that vitamin B, deficiency was the actual cause of this condition. The deficiency was thought to arise from inadequacy and irregularities in the diet of the alcoholic leading to disturbances in the carbohydrate and vitamin B, relationship and an irritative cerebral state. Another fact pointing to the ætiological significance of vitamin B, was the anorexia of alcoholism—a common symptom in vitamin  $B_1$ deficiency. Alcoholic anorexia has been known to disappear within twenty-four hours of a single intravenous injection of 400 mg. of vitamin B, and, in the authors' series, the appetite returned much sooner in the treated than in the control cases. A further interesting point was that cure resulted from vitamin B, treatment even if the consumption of alcohol was continued. The conclusion was that alcohol in the presence of large amounts of vitamin B, injected intravenously did not cause a continuation of the symptoms of delirium tremens.

## WITCHES

The belief that the witch trials of the Middle Ages can only be excused by the foolishness of the judges and their contemporaries is losing ground more and more. Hate and lust for revenge, sadism, evil sexual crimes, and avarice were as powerful in their effect as the fear, foolishness, and mental disease of those



Witches' Sabbath

who brought the charges.

The first details of witches are found in the eleventh century and the first persecution seems to have taken place in 1330 in the region of the Pyrenees, while witches were charged in the Alps at about 1400. The crimes were promoted to an enormous extent by the Hexenhammer Malleus Maleficarum, a book in which the Witches' Sabbath, communion with the Devil, and all other misdeeds attributed to witches were described. Earlier than this the Bull of Innocent VIII

of 1484, in which the heretical nature of wizardry is particularly stressed, had been published; the Bull was inserted at the beginning of the Malleus and doubt of the reality of witches was described as heresy in this book. Even at that time there were free spirits amongst the theologians, who (Hanzkranna, 1484) described the belief in the journeyings of witches as nonsense, and, in contrast to Luther and even Paracelsus, Erasmus of Rotterdam expressed his disbelief in witches.

The main charges against witches were that they blasphemed God and prayed to Satan, with whom they made a contract signed with their own blood; that they murdered children before baptism, and used their fat for preparing magic ointments; and that they poisoned and bewitched people whom they wanted to destroy. They were also accused of bewitching animals, releasing hail-storms on the harvest, sending plagues of caterpillars, frogs, and snakes, and raising tempests and storms.

CLINICAL EXCERPTS

According to the beliefs of the Middle Ages, the Sabbath was a festival which occurred at regular intervals. The witches attended in groups, riding on various monsters or on a broomstick, some in

their natural shape, others transformed into animals. They came from the farthest districts, travelling along with the speed of lightning by virtue of their mysterious ointment. Under the protection of darkness or by moonlight the cult of the Devil unfolded its blasphemous pomp-a praise of Satan, presentation of new members, carousing, song and dance and, to crown the whole magic, the sexual relationships amongst the members. The pact with the Devil gave the witch the right to take part in the Sabbath. For this purpose the Devil gave her a white stick with a black end and a tin of Devil's ointment, which was never exhausted



and with which she had to anoint the staff. Then she had to sit astride the stick and in a second she was at the meeting place.

There can be little doubt that many women believed themselves



Preparing for the Sabbath

to be witches, and were convinced that their traffic with the Devil and his satellites was real. Many of these unfortunate individuals suffered from hysteria and other mental diseases, but in most instances mixtures containing belladonna and other narcotic drugs were employed to heighten the delusions; the ointwhich contained similar ment, ingredients, was rubbed over the body and sometimes administered per vaginam with the handle of the witches' broom. In some cases it was suspected that women were led to practise taking poison by small cliques of informers who profited by their denunciation and condemnation.

#### CLINICAL EXCERPTS\_

Women charged with witchcraft were examined in a special way. The doctor made pricks of various depths with a needle in different parts of the body until he came to an insensitive part. When this

spot was detected, especially when it did not bleed, it was thought that the seal of the Devil-the sigillum diaboli-had been found, and it was considered definite evidence of witchcraft. If this fatal spot could not be found quickly, the surgeon simulated one by applying various manipulations. In many cases the individual was suffering from



A Witch Returning

hysteria, and anæsthetic areas were easily discovered or created by suggestion. If the signs were not sufficiently plain new tortures were undertaken. One of these was the trial by water, which consisted in throwing the victim into a large hole containing water; either the unfortunate person sank and was drowned because she could not swim—then she was innocent—or she swam on the surface and



Johann Weyer (1515-1588)

then she was a witch.

Until the eighteenth century almost everybody believed in witches. Even well-known scholars like Felix Platter, Professor of Medicine at Basle, believed in possession by the Devil, and Daniel Sennert, Professor of Medicine at Wittenburg, who described a sort of ecstasy caused by the hand of the Devil, did not doubt that people possessed by the Devil could fly through the air. Ambroise Paré wrote of those possessed that their tongues hung out of their mouths while speaking, that they spoke various unknown languages,

made the earth tremble, produced thunder, lightning, storms, tore trees out by their roots, and moved mountains and castles. During the sixteenth and seventeenth centuries very few spoke with the voice

CLINICAL

of reason; the father of Pantagruel, always cautious, satisfied himself with a smile, while Montaigne, as ever, spoke his doubts quite openly. Pigray, the personal doctor of Henry III and Henry IV, protested against the Witch Trials in France. In his book "Surgery," he reports how he was entrusted with the examination of fourteen people—men and women—charged with witchcraft : "We found nothing of what had been set against them, in particular that various parts of the body were entirely anæsthetised. We examined them very carefully without forgetting any regulation and had them stripped naked. They were pricked at various spots where they showed very plain feeling. We asked them about the most varied things as is done with melancholics, and we saw in them only poor, stupid people who were in some cases

not afraid of death, while others wished for it. We would rather have given them an aperient to purge them than another remedy to punish them. The court released them, in accordance with our report."

In the sixteenth century Dr. Johann Weyer courageously went to the help of the condemned people whom no one dared to protect. He pointed out that many people were the victims and not the accomplices of the Devil and that they were an easy prey to the great tempter, who filled their weak



A Witch-burning

minds with hallucinations and dreams and persuaded them that they had committed crimes with which they had nothing to do. That was a complete revolution, since instead of the idea of active witchcraft, of a crime calling for punishment, the notion of passive witchcraft, of possession, had appeared and thus released the plaintiff from responsibility.

The most strenuous opponents of the cult of the Devil came from amongst the Jesuits. Adam Tanner and Paul Laymann defended the unfortunate persons with the polemic treatise—" Cautio criminalis, Liber de processu contra sagas," but it was a long fight before reason won the victory. But the terrible crimes brought the informer so much profit that, in order not to lose it, he again and again found opportunities to wake in the people the belief in witches. It was only in 1775 in Kempton in Allgau that the last witch was beheaded by the sword and the last witch in Switzerland, Anna Göldlin, was killed in 1783. According to particulars in Meyer's Lexicon, a Witch Trial took place on the Hela peninsula in 1836 and as the test showed guilt, the witch was drowned.

## LOCAL CHEMOTHERAPY WITH 'PRONTOSIL'

A survey of the indications for 'Prontosil' ointment and solution.

THE value of chemotherapy in acute infections like erysipelas and cellulitis has been fully demonstrated, but the results of oral and parenteral treatment in long-established condi-

tions such as infected sinuses and ulcers have been disappointing. This is, no doubt, partly due to the non-susceptibility of certain organisms to chemotherapy, but it also appears probable that, owing to a poor blood supply and the inaccessibility of organisms in such lesions, a drug circulating in the blood stream does not attain a sufficient concentration in the area affected. For this reason the prophylactic and therapeutic properties of local chemotherapy deserve further attention, especially in view of the low toxicity of this method of treatment.

Becker (Dtsch. med. Wschr., 1937, 7, 221) first used Prontosil Rubrum as an external application and claimed good results in traumatic ulcerations, carbuncles, axillary abscesses, and infected skin diseases; improvement was also observed in some cases of psoriasis, and, in addition to the antibacterial action of Prontosil, a stimulating effect attributed to the azo-dye was noted. Later, Merz (Schweiz. med. Wschr., 1937, 16, 342) successfully used a Prontosil Album ointment in furunculosis and impetigo, and Prontosil Soluble was injected by other workers into the theca in meningitis and into the pleura in empyema, in an attempt to influence the condition locally; in the case of meningitis, treatment by mouth and injection was also employed but in some cases of empyema rapid improvement followed local treatment alone. Bosse and Bosse, and Schirp, whose experiences were abstracted on p. 99 of CLINICAL EXCERPTS, 1939, employed Prontosil Rubrum and Soluble in lotion, powder, and ointment in a wide variety of conditions, including boils, carbuncles, cellulitis, infected wounds, abscess cavities, varicose ulcers, burns, and tonsillitis. It is interesting to note that in some instances staphylococcal infections, which respond poorly to oral treatment, were successfully treated by local application.

Satisfactory results from the irrigation of infected sinuses with Prontosil Soluble were mentioned on p. 39 of CLINICAL EXCERPTS, March, 1940, and another report from Green's Eye Hospital (*Bull. Pract. Ophthal.*, January, 1939, p. 13) deals with the same procedure. After irrigation of the sinus cavity through the inferior meatus, the antrum was dried and then filled with Prontosil Soluble. As the local effect persisted for from 36–48 hours, the instillation was repeated thrice weekly and cure followed in many cases of sinusitis both acute and chronic. Glover (*Amer. J. Ophthal.*, February,

CLINICAL EXCERPTS

1939, p. 180) also used the 2.5 per cent. solution of Prontosil Soluble as eye-drops for the treatment of ophthalmia neonatorum, conjunctivitis, iritis, and corneal ulceration, and Paton (*Arch. Ophthal.*, September, 1939, p. 377) injected 0.3 and 0.5 c.c. Prontosil Soluble into the upper or lower conjunctival sac, after anæsthetising the eye with 0.5 per cent. Decicain. A good effect was noted in cases of iritis, scleritis, and interstitial keratitis. Lane and Vinson (*Virginia med. Month.*, September, 1939, p. 528) treated aphthous stomatitis with local applications of sulphanilamide. Chemotherapeutic drugs have also been used in cases of apical dental infection and for the treatment of infected sockets after extraction for pyorrheea.

Jensen and his co-workers (Surgery, July, 1939, p. 1) employed sulphanilamide powder in cases of compound fracture. After débridement and hæmostasis, 5-15 g. of the powdered substance was introduced into the wound and the fracture immobilised. Primary wound infection was avoided in all thirty-nine cases. The publication of Smith's results, which were abstracted on p. 67 of CLINICAL EXCERPTS, June, 1940, was followed by a report on ionisation with Prontosil Soluble by Stewart (Brit. med. J., July 6th, 1940, p. 30). This author pointed out that local treatment in lesions such as abscesses and fistulæ, which were not accessible to blood-borne drugs, appeared rational, although conclusions could not be based on the small number of cases treated. Three instances of this procedure were given.

CASE I.—In December, 1939, a female patient had a finger-nail removed for paronychia. As the new nail developed, pus collected underneath it and several methods of treatment were employed without improvement. Ionisation with a 3 per cent. solution of Prontosil was carried out for three minutes and, after a second treatment four days later, the finger healed completely.

CASE 2.—A female patient had suffered from an infected elbow for four or five years. According to X-ray examination there was no bony involvement, but a slightly inflamed area with three sinuses was present below the elbow over the radius. The cavities were cleaned out and ionisation with a 3 per cent. Prontosil solution given for ten minutes. After five treatments the tissues were firm and the sinuses showed healthy granulation. Later one sinus healed completely, while the other two were skin deep.

CASE 3.—Ionisation with Prontosil was tried in a case of chronic otorrhœa, but no improvement followed.

A consideration of the results reported above suggests that local chemotherapy deserves wider investigation, the results of which may explain the failures noted in the past with oral or parenteral treatment. At present it would appear that direct application to the lesions may offer a partial solution to the difficulties hitherto encountered in attempting to prevent or cure certain types of infection. The most favourable indications appear to be infected and resistant conditions such as varicose ulcers, callous ulcers situated elsewhere, infected wounds and sinuses, abscess cavities (e.g., breast abscesses), unhealed and infected burns, and X-ray and radium ulcers. In such lesions a further advantage is the stimulating and deodorant effect of Prontosil ointment and solution. Further indications such as infected skin diseases, ophthalmic infections, and sinusitis should not be overlooked. In addition, the possibilities of local prophylaxis in wounds and burns have not been determined and little information is available on the question of combining local and oral therapy. Any measure which would tend to diminish the toxicity of chemotherapeutic compounds and permit of prolonged treatment without the risk of serious after-effects would be of great value.

## THE PATCH TEST

A useful diagnostic measure in skin diseases. SENSITIVITY to chemical substances, natural or synthetic, is a fairly common cause of dermatitis. A list of possible excitants would fill several pages, as it would include drugs, dyes, flowers and leaves, fruit, timber, varnishes,

and organic compounds of all kinds. Owing to the rapid developments of war-time industry new chemical compounds are apt to be used and the practitioner should, therefore, keep the possibility of contact dermatitis in mind. It must be remembered that only a small minority of individuals is sensitive to these substances and that the rash may appear on parts not in contact with the excitant. Thus a patient whose burned hand is dressed with picric acid may develop a severe dermatitis of the hands, fore-arms, face, thighs, and legs.

The patch test is a simple and useful method of discovering the exciting substance, and even where a case appears to be obvious as in hair-dye dermatitis—the test is useful as an additional proof of the patient's sensitivity. First of all small amounts of possible excitants must be collected; this can often be done most easily by the patient himself. Pieces of gauze about  $\frac{1}{2}$  in. square are then wrung out of the suspected substances if they are in solution; if dry, they are applied to the skin on gauze moistened with saline. The gauze is then covered with a I in. square of Cellophane or X-ray film and the whole fastened to the skin with a square piece of zinc oxide plaster. A control patch consisting of moist gauze, cellophane, and plaster is also applied.

The patches are observed in twenty-four, forty-eight, and seventytwo hours; a positive reaction consists in the development of a reddened area of skin studded with tiny vesicles. If these are present underneath one or more patches the patient is sensitive to the substance or substances employed. The only method of cure is the complete avoidance of the offending chemical, as no satisfactory method of desensitisation has yet been discovered.

## LEECHES

214

The medicinal use of the leech, which is to-day almost in a state of eclipse, reaches far back into ancient history. Within living memory doctors' apprentices used to race leeches along the bench, or suffer chastisement for having neglected to replace the cover on the jar in which they were kept. Although, according to early writers, their beneficent powers were almost overwhelming, their use was not entirely without danger.

According to one legend a foal, having fallen in a ditch, was beset

by a number of the terraqueous animals, and succumbed to their onslaught. But those were horse-leeches, to which a special horror was long attributed, as they were believed to attach themselves to human beings and to gorge themselves with great greediness. Greed cannot be considered peculiar to leeches, but they were credited with advantages, not shared by other animals, since it was alleged that they were able to discharge the ingested blood by the anus and begin again with renewed avidity.

It is little wonder then that the ancients dreaded swallowing a leech, and their terror might be suspected from a consideration of the remedies for



An Old Leech Jar

By permission of Geoffrey Howard, Esq.

such a misfortune — vinegar and garlic; salt water and assafœtida; shoemakers' blacking. Moreover, if a burning sensation were felt in the throat the sternutatory hellebore was not to be despised, and Avicenna recommended garlic and wormwood. The scrutiny of science dispelled these horrors. A poor Hussar who gained a miserable livelihood by swallowing stones for the amusement of common people was so expert that he could ingurgitate several at a time. Animated by scientific curiosity an enterprising physician enclosed a live leech in a silver sphere perforated with small holes and persuaded the warrior to swallow it. Would the gastric fluid destroy the leech? The Hussar voided the sphere after about twenty-four hours. Nothing was found but a black, viscid miasma, the remains of the digested leech. Against this there is the opinion of the great John Hunter who said that, as the stomach, on account of its vital principle, is CLINICAL EXCERPTS

never acted upon by its own gastric fluid, so, in the same way, no other substance similarly endowed can be affected. Obviously the vital principle of the Hussar's leech was extinct before the gastric fluid reached it.

It must be remembered that the subject of this experiment was a medicinal leech, a delicate creature alongside the horse-leech. The



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From "Des Herunduees," by A. Mougnin-Tandon, British Museum

latter will swallow the former whole, and it is recorded that one horseleech was observed to swallow two common rivulet leeches. In three days one of these was disgorged, still living, but after the lapse of a few hours it was swallowed once more.

The ferocity of leeches is occasionally allayed by laziness, and many a physician has encountered in them a reluctance to bite. They may have to be cossetted, or they may take a dislike to the patient; thus they have a lively objection to the odour of sulphur. If difficulties arise they may be placed in weak sherry and water, or lukewarm milk and water, for a few minutes, although beer and stout appears to be just as satisfactory; and it is advisable to clean the area of skin to

which the leech is to be attached. When the leech is actually at work it can be encouraged by snipping off its tail with a particularly sharp pair of scissors, hanging the extremities over a glass. Leeches have been known to regenerate and survive such an operation.

Modern physicians have the feeblest notions as to the dosage of leeches. Zacutus Lusitanus reported the case of a woman who, "whilst labouring under a retention of the menses, was attacked with phrenitis. Four leeches were attached by their extremities to a

CLINICAL EXCERPTS

thread, which gave the person who applied them the power of insinuating themselves beyond the part selected; and they were placed within the vagina, very near to the uterus." In his Treatise on the Utility of Sanguisuction, Rees-Price says that in a similar case he directed three dozen to be applied to the neck. Some authorities prefer their application to the hæmorrhoidal veins, in consequence of the close connexion which exists between these veins and other parts of the body. Many writers agree with Rees-Price as to the use of leeches



Leech-finders

on a liberal scale. They speak of "a swarm of leeches," a cordon, a cluster, cohorts of leeches—fifteen to the pudendum, and the like number to the neck, forty-eight to the spine, and a couple of dozen behind the ear.

The following case-report of the treatment of gout from Zacutus Lusitanus will clearly illustrate the necessity for numbers :---

CASE I.—" After trying the *wonderful* ointment of Ebulus, described by Lacuna, in Diascoridem, lib. IV. cap. 175, and great cupping-glasses, with scarifications and caustics without effect, at length by the advice of Paulus, lib. III. cap. 77; and Caelius, lib. V. cap. 1, I tried leeches: I set eight great horse-leeches upon the hip: after the sucking of the leeches, so great an evacuation followed, that, after ten hours, the pain went away. This remedy I have happily experimented in many times in gouts of the hands, feet and knees, after the body had been well purged."

Its work done, the leech drops off, fully gorged. To make it disgorge the common practice is to sprinkle it with salt. Like human beings who have over-indulged it loses activity and vigour for four or five days. "I would ask inconsiderate persons," says Horn in his Entirely New Treatise on Leeches, "how they themselves would feel, if, imme-

From " Costumes of Yorkshire," British Museum

#### CLINICAL EXCERPTS.

diately after eating a hearty dinner, any person was to give them a violent emetic?" In the best circles vinegar is judged to be as effective as salt and far less damaging, for the leech is a delicate creature

214



with a high mortality-rate. They are susceptible to change in the weather and subject to a number of diseases, and it is estimated that a third of all the leeches caught yearly die. This fact was regarded as being so important that a French physician willed 20,000 francs to any person who should discover a cure.

At the beginning of last century London used to import about sixty million leeches annually. A member of the firm of Negus and Co., of Melbourne, New York, and Boston, left an essay on the subject. This firm called themselves commission merchants, importers, and leech merchants ; but they were agents for Havana cigars, kerosene, and all American patent medicines. In view

of the decay of the use of leeches it is as well that they did not put all their eggs in one basket. H. G. S.

#### 'EVIPAN' SODIUM IN ANAESTHETIC CONVULSIONS

ALTHOUGH the incidence of convulsions due to local anæsthetics has markedly diminished since cocaine was abandoned for regional or infiltration anæsthesia, cases still occur with the cocaine substitutes in the presence of over-dosage or an individual lack of tolerability on the part of the patient. Hunt (Yale Jour. Biol. Med., December, 1938) has recently discussed the treatment of such reactions and recommends quick-acting barbiturates, such as Evipan Sodium. In the author's case an infant aged three months developed convulsions following the injection of 170 c.c. of 0.5 per cent. Novocain solution. Treatment with Luminal produced no improvement, but an injection of Evipan Sodium into a scalp vein was followed by cessation of the convulsions and thirty minutes later the infant was sleeping quietly. Eight days later the operation was performed without difficulty using a much smaller quantity of Novocain.

THE SUNDAY TIMES, JUNE 2. 1957

## WILLIAM HARVEY (Pioneer of Heart Research)

HIPPOCRATES-400

heart was a muscle, and that the pulse was due to a movement of the blood Fifty vessels. years later Aristotle likened the movement of blood in the body to the ebb and flow of the tide but while he recognised that the heart was the centre of the vascular system, for him it was also the seat of the intelligence and the source of the body's heat.

Galen in A.D. 180 carried knowledge a little farther and was the first experimental physiologist to divide an artery and show that it contained blood and not air. Un-fortunately, he also thought that blood flowed through invisible channels from one side of the heart to the other, and that the liver was the body's vital centre.

Surprisingly these doctrines remained undisputed for over Leonardo da Vinci's 1.400 years. beautiful detailed drawings show that about 1500 the artist recognised four chambers in the heart and knew about the two valves at the roots of the main arteries; but his drawings were not published for many years, and to William Harvey belongs the signal honour of first discovering the circulation.

\*\* \* \*

 $H^{\rm E}$  described it as "Motion as it were in a circle," and proved that the heart is a muscular to the set of the set lar pump which forces blood in two separate streams — one through the lungs, where it is purified and carried on thence nto the second stream, round the body into the small veins back to he heart by the two main venous trunks.

He did not comprehend that the movements of the chest wall in breathing are an aid to circulation, but the facts he demonstrated have remained un-

This in itself was evidence of his original and independent mindsince the dissection of animals was considered reprehensible in an age which heid human life relatively cheap. Public dis-section of executed criminals was allowed at certain times each year. In 1635 Harvey recorded his findings on the examination of the body of "Old Parr"-said to be 152 years and nine months old.

William Harvey-that endear-ing, dark-skinned, choleric little man (he suffered from gout and sciatica)—was born in Folkestone on April 1, 1578, the eldest of a "weeke of sons," and he died 300 years ago tomorrow. Educated at King's School, Canterbury. he held a medical scholarship at Gonville and Caius College. Cambridge. He later studied under Fabricius at Padua and returned to London in 1662. He became physician to St Bartholomew's Hospital, Fellow of the Royal College of Physicians, and at the age of 37 was elected Lumleian lecturer to the College.

His secture notes-now in the challenged by anatomists and British Museum—were made in physiologists for over three an "atrocious crabbed hand" on centuries. Centuries. Harvey arrived at his con-clusions by detailed dis-sections of 80 different animal the secrets of nature by experi-species, and we are told that ment." About this time he these included serpents, oysters, became physician extraordinary Cordis" by frogs, fishes, slugs and dogs, even to James I, and later physician transparent shrimps, and finally to Charles T, with whom he was the chick embryo in the shell. on warm terms and to whom in Physicians.

IPPOCRATES-400 B.C.- By BARBARA EVANS first recognised that the rt was a muscle, and ing the King as centre of the body politic to the heart of man.

During the Civil War his affection for the King carried him with the latter to the Battle of Edgehill, where he was in charge of the two little princes. He finally accompanied the King in exile to Oxford, and became Warden of Merton College.

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\*

HIS writings show that he had **Π** discovered the circulation ten or twelve years before the publication of "De Motu Cordis," and that he had spent the intervening years in detailed confirmation and elaboration of his findings. Possibly no single man has contributed more to medi-At his death he left concine. siderable bequests to the College of Physicians, and on St. Luke's of Physicians, and on St. Luke's Day each year an oration is given in honour of William Harvey who, in the words inscribed on his tomb in Hemp-stead Church, "was the first after many thousand years to discover the circulation of the blood, and so brought health to the world and immortality to himself."

This week scientists from all over the world will gather in London for a congress to commemorate the tercentenary of his death; and celebrations next week-end will be held in Folkestone and Canterbury. Our own surgeons and physicians, as well as representatives from America and overseas, will take part.

Surgery plays an increasingly important part in the treatment of heart disease today and a large section of the congress will be devoted to this subject. We shall have access to the widest knowledge available for dealing with high blood-pressure, valvular and congenital disease of the heart and other aspects of heart disease which still present many problems to Harvey's successors.

[A new translation of "De Motu Cordis" by Kenneth Franklin is published this week by Blackwell Scientific Publications, Oxford (17s 6d.) for the Royal College of Descriptione.

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## THE SUNDAY TIMES, APRIL 6, 1958

# Darwin's Autobiography

# THE SUPPRESSED PASSAGES RESTORED

THE AUTOBIOGRAPHY OF CHARLES DARWIN 1809-1882. Edited by Nora Bar. low. (Collins. 16s.)

### By RAYMOND MORTIMER

I think that goodness was hatred. able: he seems to have grown account of his religious opinionsit, as he grew his beard, without and now something must be said effort. But then life was mar- about his wife. Lady Barlow gives vellously kind to him, and one he weighed the pros and cons of cannot tell how he would have marriage. Here is the conclusion: stood up to the embittering ordeals endured by Tennyson, let alone Newman. It is true that he had to face even wider and fouler abuse than they, but only from persons who could not thwart his career or command his deference. A comfortable income and an ideal marriage enabled him to live just as he wished, devoting him-self absolutely to his vocation.

This new edition of his delightful Autobiography includes all the passages that have hitherto been suppressed; and the gravest fault that these unveil is a boyhood habit of stealing fruit. Lady Barlow has allowed her printers to foist upon Darwin an absurd mistake in Greek: otherwise her editing, her notes and appendices are exemplary. Like his other grandchildren, Mrs. Cornford, Mrs. Raverat and Mr. Bernard Darwin, she inherits his gift for writing.

The Autobiography first appeared in the official "Life and Letters" produced by his son Frank in 1887. The suppressed passages include a touching tribute to his wife (which presumably she thought too per-sonal), and a number of comments (most of them mild enough) upon men then still alive or recently dead, such as Owen, Hooker, Herbert Spencer and Huxley.

\*

THERE is a paragraph about " the almost insane virulence " with which he had been attacked by Samuel Butler. Lady Barlow goes into this incident thoroughly, reprinting Festing-Jones's pamphlet, and giving us for the first time letters on the subject from Huxley and Leslie Stephen. They grossly underestimated Butler's abilities, and unwisely persuaded Darwin not to clear up the misunderstanding. In consequence poor Darwin was pursued for the rest of his life

F all Darwin's endowments by poor Butler with obsessional that belief in God may be in-

The most important cuts, howperhaps the most remark- ever, were made in Darwin's us the fascinating notes in which

narriage. Here is the conclusion: Then how should I manage all my business if I were obliged to go every day walking with my wife. Eheul! I never should know French-or see the Continent.--or go to America, or go up in a Balloon, or take a solitary trip to Wales--poor siave, you will be worse than a negro--And then horrid poverby (without one's wife was better than an angel and had money)--Never mind my boy --Cheer up--One cannot live this solitary life, with groggy old are. friendless and cold and childless staring one in one's face, already beginning to wrinkle. Never mind, trust to chance-keep a sharp look out.--There is many a happy slave--slave

Why marriage should prevent his going to the Continent, for instance, remains obscure. But he never went, and he did marry. His wife, like his mother a Wedgwood, was a delightfully humorous and unconventional woman. (I commend Mrs. Litchfield's book about her.) In forty-three years she hardly spent a night away from him. No marriage could have been happier.

\* A BOUT religion she and her hus-band agreed to differ, and she remained an Anglican communi-cant. We now learn that Frank Darwin started a frightful family rumpus by wishing to print what the Autobiography said about religion. His brothers agreed with him; but his sister Mrs. Litchfield (the glorious "Aunt Etty" of Mrs. Raverat's Memoirs) thought Darwin's religious views crude and only half thought-out. His account of them must be kept dark, she insisted; and she spoke of legal proceedings if her wishes were not obeyed. Her mother gave her some support, begging Frank to omit certain passages that would give pain to his father's religious friends, including old servants.

Mrs. Darwin objected particu-larly to the attack upon Christianity for teaching eternal punishment (in which she did not believe); and to the suggestion he made his health a reason for and candour.

herited from parents who have acquired it, and can be compared with the monkey's instinctive fear of snakes (a suggestion that has scientific basis). Frank felt no obliged to suppress these passages. together with a description of the Old Testament God as a revengeful tyrant. He braved his sister, however, by printing most of Darwin's views upon this ticklish subject.

Here is a more interesting omission:

Whilst I was young and strong. I was capable of very warm attach-ments, but of late years, though I still have very friendly feelings towards many people. I have lost the power of becoming deeply attached to anyone, not even so deeply to my good and dear friends. Hooker and Huxley, as I should formerly have been.

He explains this by the dis-tressing exhaustion caused by talking for an hour to anyone except his wife and children. But it surely can be associated with the loss of his youthful delight in poetry and music, which he described in a well-known passage. Though he could never tell one tune from another, he used as an undergraduate to hire a choirboy to sing to him in his rooms. He had been also a passionate admirer Wordsworth. Milton and of Shakespeare-whom he now found nauseatingly dull. "The loss of these tastes," he declares with characteristic candour, "is a loss of happiness and may possibly be injurious to the intellect, and more probably to the moral character by enfeebling the emotional part of our nature."

TE attributed these losses partly H to his chronic ill-health. He led the life of an invalid; and it has been suggested, notably by Dr. Douglas Hubble, that this illness was neurotic, caused partly by suppressed guilt about his feelings towards his father, partly by the wish to evade public and social activities that would distract him from his work. In the Auto-biography (we now learn) he gave the date of his father's death as 1847 instead of 1848, which may be thought significant; and certainly



Charles Darwin, aged 72, on the verandah of his house at Downe, Kent, dressed for his habitual walk.

escaping almost everything that he disliked. But it also kept his working day to 21 hours at the most, which cannot have been convenient, unless one suspects him of a relish for indolence-which I find impossible. Several of his family were comically valetudinand one may assume a arian. heredity of neurosis as well as of outstanding ability.

\* \*

DARWIN did not know Mendel's findings about heredity, or the part played by mutations. Also he continued to suspect that acquired characteristics could be inherited. (Why this notion remains so popular with the uninformed I cannot understand, since every child one knows is negative evidence.) But Darwin was the first to offer convincing proof of evolution; and he thus enlarged the human mind as effectively as Galileo or Newton. The hubbub of fury he provoked now seems ludicrous: two of the greatest modern experts upon Ancient Man have been priests, the Abbé Breuil and the Jesuit, Teilhard de Chardin. Can the Biblical accounts of the Creation and Noah's Ark be taken literally even by those undergraduates who boldly call themselves fundamentalists?

It is pleasing to remember that this innovator of genius, so wonderfully pertinacious, attentive and imaginative, was no less exceptional in his gentleness, modesty



Franciscus Sylvius (1614-1672)

SYLVIUS established at Leyden the first chemical laboratory in Europe. He attributed much to the effect of acids and alkalies in explaining the phenomena of health and disease. Sylvius is regarded as the founder of the introchemical school of medicine.

WHAT FRANCISCUS SYLVIUS, at a time when chem-

istry was in its infancy, established by surmise, modern medicine has established as a fact. Acidosis takes an important part in determining the course of disease. Even in health, acidosis gives rise to vague symptoms, such as headache, lassitude, sleeplessness, loss of appetite, and others.

ALKA-ZANE has established itself as an important aid in the treatment of all conditions where systemic acidosis requires attention. Sodium, potassium, calcium, magnesium in the effervescent form of carbonates, phosphates, and citrates provide an exceptionally efficient and palatable alkalizer. Alka-Zane contains no lactates, sulphates or tartrates; and no sodium chloride.

If you will return the attached card, we will be glad to send you two bottles of Alka-Zane for use under your own supervision. That will soon prove its therapeutic merit to you.

Prints from Magazies (chiefte) aber Dogen Mostly 18×19 Cute Clel English. Almost Impossible to Processe alson bld notes of Medican

## THE GREATEST PILL TAKER

The greatest pill taker on record, according to C. J. S. Thompson, appears to have been one Jessup, a grazier of Hickington, who died in Lincoln in 1814, at the age of 65. For twenty-one years he took 29 pills a day, which number he increased to 78 toward the latter part of his life. In 21 years he is stated to have swallowed 226,934 pills and drank 40,000 bottles of mixture.

HERE is a true example of the pill habit in constipation. More and more are needed for accomplishing the same effect.

AGAROL offers a welcome relief from this situation. As the pioneer mineral oil and agar-agar emulsion with phenolphthalein, Agarol has introduced these two important principles in the resultful treatment of constipation:

- 1. Thorough mixing with and softening of the intestinal contents so as to make evacuation easy and painless.
- 2. Gentle stimulation of peristalsis to make the result certain and re-establishment of normal function practicable.

As improvement takes place, the administration of Agarol can be decreased in quantity and frequency, and finally discontinued entirely.

How well Agarol accomplishes its double function, you can judge by sending the coupon for two bottles of Agarol and using it under your supervision. There is no cost or obligation involved. Return the coupon before you turn the page.



Early Drawing of Intestinal Tract

## THE ORIGIN OF "ACIDOSIS"

Newbern " . S

As professor of clinical medicine at the University of Strassburg, his discovery of beta-oxybutyric acid led to the introduction of the term "acidosis" in 1906, to define the metabolic condition of excess acid formation in diabetes.

214



Bernard Naunyn (1839-1925)

1-5 formation and retention in the body following in the wake of infectious diseases, nephritis, cardiac disorders and during pregnancy, the term *acidosis* has taken on a broader meaning to include all these hyperacid conditions.

While the treatment is directed toward removing the cause of the disease, special measures must be employed to relieve the aggravating factor of acidosis. In such instances ALKA-ZANE provides a safe, efficient and convenient method for neutralization of excess systemic acidity and replenishing the alkali reserve.

Carbonates, phosphates and citrates of sodium, potassium, calcium and magnesium provide *all* the important alkaline salts needed by the organism. No tartrates, lactates, sulphates to make the result doubtful; no sodium chloride to interfere with diuresis.

Two bottles of Alka-Zane will be gladly sent to physicians who return the coupon. Using it, is the best and most convincing test of the therapeutic value and palatability of Alka-Zane.

Please return the coupon today

## NATURE'S DEMANDS IN 450 B.C. ARE THE SAME IN 1931 A.D.

The medical treatment of Hippocrates was simple and he relied much on the inherent curative power of nature. He assisted nature by providing fresh air, suitable diet and by water baths and purgation.



Hippocrates A 16th Century Illustration

THESE are still prime requisites for

giving the body a chance, in illness or health, to maintain itself in good condition and meet the demands placed upon it. Intestinal toxaemia resulting from constipation needs attention today as it did in the days of Hippocrates. But instead of the drastic drugs of ancient times **AGAROL**, the original mineral oil and agar-agar emulsion with phenolphthalein, takes its rightful place as the modern intestinal evacuant.

214

The right amount of mineral oil to soften the intestinal contents without causing leakage, makes evacuation easy and painless.

Gentle stimulation of peristalsis makes the result certain and the re-establishment of normal, unaided function possible.

Please return the coupon for two bottles Agarol. You may be acquainted with Agarol—but it will be worth your while to renew acquaintance with it

## 214



FRIEDRICH WALTER, in 1877, fed rabbits varying amounts of acids, eventually producing collapse, which he overcame by the administration of alkalies. This work has been pronounced the experimental foundation of our knowledge of acid intoxication.

Puncture for asciles from an early anatomical work

## IN 1877 •

NOT until comparatively recent times were the findings of Walter translated into general clinical use, even though von Jaksch found in 1888 that the alkalinity of the blood is diminished in numerous disease conditions.

Today, alkaline treatment constitutes an important adjunct to specific treatment of febrile and infectious diseases, uraemia, toxaemias of pregnancy, and other conditions in which acidosis occurs.

**ALKA-ZANE** is the preferred systemic alkalizer because it accomplishes with *small doses* what no single alkali can accomplish satisfactorily. It supplies sodium, potassium, calcium and magnesium in easily assimilable carbonates, phosphates and citrates for replenishing and maintaining the alkali reserve in acidosis.

Alka-Zane contains no tartrates, lactates or sulphates; no sodium chloride. It is an unusually palatable effervescent preparation.

Why not find out about it today? All that is necessary is to return the coupon and two bottles of Alka-Zane will be sent with our compliments.

## AS GILLRAY SAW IT



Taking Physik

JAMES GILLRAY was a prominent English social caricaturist, but science has not escaped his darts of wit. The expression on the face of the man taking the "physic" is not one of pleasure. There is a good reason for it in the taste.

214

BESIDES therapeutic efficiency, modern pharmacy has brought one other important property to the "physic" up-to-date —and that is palatability.

AGAROL, the original mineral oil and agaragar emulsion with phenolphthalein, is as palatable as it is efficient. Even children take it readily. No oily taste or artificial flavoring to give concern. Those who prefer, may take Agarol in milk or any liquid or semi-solid food.

Just the right amount of mineral oil to afford softening effect to the intestinal contents without possible excess to cause leakage; just enough phenolphthalein to impart *gentle stimulating action* upon the peristaltic function, aiding in the re-establishment of regular habit-formation.

We would like to send you a twin package of Agarol with our compliments.

Your name and address on the coupon below will bring it

FRANCIS NEWBERY & SONS, LTD. 31-33, Banner Street, London, E. C. 1

## CELSUS CONFUSED CAUSE WITH EFFECT



Celsus, in his "Sentences" expresses the belief that "the haemorrhoids happening to melancholick and nephritick persons, are good."..."By the haemorrhoids the superabundant blood is evacuated, but if they are suppressed, they cause melancholy, pains in the back and loins, stone and gravel."

214

IT IS INTERESTING to observe with

Osler that here again "to a very definite but entirely erroneous pathology was added a treatment rational in every respect, had the pathology been correct." For in Celsus' time astringent suppositories were used in the treatment of haemorrhoids, and no doubt frequently with good results.

ANUSOL SUPPOSITORIES have brought the treatment, probably dating back to Hippocrates, within the realm of present day medicine.

Prompt alleviation of pain, early control of haemorrhage, and undelayed relief from inflammation—commend the use of Anusol Suppositories as a sound and efficient measure in haemorrhoids and other rectal inflammatory conditions.

A trial supply is at the disposal of physicians who return the coupon
### THE JOURNAL OF ORGANOTHERAPY

have been missed. The data of Hitchcock and Wardwell (J. Nutrition, 2:203,1929) suggest the presence of a metabolic cycle, although Du Bois (Basal Metabolism in Health and Disease, 3rd ed., p. 383, Lea & Febiger, Philadelphia, 1936) summarizes the literature as yielding no conclusive evidence."

"In conclusion, attention is drawn to the cyclic fluctuation in B. M. R. It is suggested that for clinical purposes, the B. M. R. be taken at a known phase of the cycle, and interpreted in the light of such knowledge. The cycle of body temperatures is again stressed with particular emphasis upon the fact that temperatures between 99° F and 100° F may be perfectly normal during the premenstrual week. Finally, it is suggested that the body temperature, after its pattern is known, provides an excellent index of ovarian activity. It is easy to measure, widely applicable, and offers a tool in the study of the 'safe period' or 'rhythm' method of contraception, as well as in sterility and other gynecological endocrine disorders.'' (3)

The technique required, determination of individual patterns, and the common conditions invalidating the results make the vaginal smear method difficult of application to practice. Further investigation of the highly interesting relationship between basal metabolic rate, body temperature and ovarian activity may develop a more satisfactory clinical method for determining ovarian function than is now available.

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- 3. Rubenstein, B. B., Endocrinology, 22:41, Jan., 1938.

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214

# The Doctor's Page



1743-1793

The biography of Jean Paul Marat falls into two sharply differentiated periods: in the first portion, up until he was about 45 years of age, his activities were devoted to scientific study and research and philosophical writings. Thereafter, until his unnatural end, he became a fanatical journalist, a pamphleteer and demagogue. The first portion brought him prestige and social position, the second brought him untimely extinction and thereby precluded any possibility of reconciliation with his fellow men. Marat was born in Boudry, Neufchatel, May 24, 1743. He was the first child of a designer, a native of Sardinia who had abandoned country and religion to marry a Swiss Protestant. Marat, himself, described his education: "By an exceptional good fortune I have had the advantages of receiving a careful education in my father's house, of escaping all the vicious habits of childhood that enervate and degrade a man, of avoiding all the excesses of youth and of arriving at manhood without having abandoned myself to the whirlwind of the passions . . . The only passion that devoured my mind was the love of fame . . ."

This excerpt from his memoirs contains a clew to the interpretation of the personality of this strange figure of the French Revolution. At the age of sixteen Marat went to Bordeaux to study medicine for two years, thence to Paris where he applied his favorite sciences, optics and electricity, and evolved a remedy for "an obstinate disease of the eyes." His Paris experiments greatly interested Benjamin Franklin who was a frequent visitor at his laboratory demonstrations. After a few years in Paris Marat went to Holland and then to London where he set up practice in Church Street.

In 1773 there appeared his philosophical essay on man which offered his opinion that the solution to the problem of the relation of soul and body could be found in physiology, and he proposed the existence of a nervous fluid as the true solution. In 1774, in London, he wrote "Chains of Slavery," a patriotic treatise and in the next year he published a short essay on "Gleets," written in English, offering no new therapy but rather a report of cases he had successfully treated. In 1775 he visited Edinburgh, and, in accordance with the requirements, was recommended by two Edinburgh physicians, Dr. Hugh James and Dr. William Buchan, for the degree of Doctor of Medicine at St. Andrews. There is no known record of Marat having taken examinations for the degree, and it is generally believed that he did not even go to St. Andrews for the ceremony.

Back in London he published his "Inquiry into the Nature, Cause and Cure of a Singular Disease of the Eyes," dedicated to the Royal Society and written in English. In this paper he described the eye symptoms following promiscuous therapy with mercury preparations, especially stressing the condition of presbyopia or long-sightedness. He advocated electricity in the therapy of this condition. The description of his methods of treatment show him to have been a careful observer and a diligent worker. The success of his treatment could not be denied.

His reputation as a physician spread and in the summer of 1777 he returned to Paris where the Comte d'Artois, afterwards Charles X of France, made him brevet physician to his bodyguard with a remuneration of 2000 livres a year and allowances. He became the physician most sought after by the aristocracy of France. He continued experiments on heat, light and electricity and presented memoirs of his studies to the Academy of Sciences in Paris, in which he startled the venerable gentlemen by holding an opinion differing from Newton's. The Academicians recommended him for industry but refused to accept him into their circle. Goethe, who also knew him and appreciated his work regarded his rejection by the Academy as another instance of scientific despotism. This action seems to have been the turning point in the constructive career of Marat, for thereafter bitter phrases came more readily from his pen and he went into open combat with all those in power whether literary, scientific or political. In 1786 he resigned his court appointment and continued scientific experiments. He published a translation into French of Newton's "Optics" (1787) and in the next year his memoirs on his new discoveries in light. In 1791 he openly attacked the Academicians with his "Les Charlatans modernes, ou lettres sur le charlatanisme academique" (Modern Charlatans, or Letters on Academic Charlatanism).

In political activities Marat was a lonewolf. He never affiliated with any party, he suspected and attacked all those in power with both pamphlets and his newspaper called *Ami du peuple*, (Friend of the People), a phrase which became his epithet. On account of his destructive attacks on the government he was continually in flight. In 1790 after a violent campaign against Lafayette Marat fled to London, a haven for the oppressed, and wrote his denunciation of Necker. A few months later he returned to Paris, and managed, by hiding in cellars and sewers, to continue the publication of his newspaper. It was at this time that he con-

(Continued on page 60)



214



"ALMS," BY JAN HAVICKSZOON STEEN (1616-1679) There is an obvious hemiplegia to the beggar's right side. By permission of J. Philip Kruseman, Publisher, The Hague, Holland. MARCH 26, 1927]

suspicious, that as a result of the proposed amendments there will be any tendency to deprive any persons of the liberty they should enjoy.

### CANCER STATISTICS.

STATISTICS are made use of almost universally as an adjunct to medical investigation and research by experiment; there is no question of their utility in this connexion. When, however, they are made to replace experiment as a mode of investigation they are apt to acquire discredit if the principles governing their use are not strictly observed. In the solution of simple problems, such as the death rate per thousand of the total population, there is not much danger of going astray; but where complex problems are concerned, such as the influence of heredity in cancer, the alleged increase in its occurrence in recent years, and the influence of civilization as an etiological factor, more is often demanded of statistics than they can reasonably be expected to perform. It is not always realized that the conditions in a statistical problem need to be as carefully thought out as in an experimental problem.

The degree of reliance to be placed on statistics as at present employed forms the subject of an interest-ing paper in the Journal of the American Medical Association by Dr. Gideon Wells, entitled "Cancer Association by Dr. Gideon wens, entitled Cancer statistics as they appear to a pathologist." He shows, in the first place, that statistics often give different answers to a plain question—for example, What is the commonest site of carcinoma in women? The statistics of the Middlesex Hospital give the breast as the commonest site; the Huntingdon Hospital, Boston, gives the skin; and the author's autopsy records from the Cook County Hospital give the stomach. It is by no means infrequent to find statistics applied in this manner, the data employed consisting neither of totals nor of fair samples of totals, and the deductions being made with a fine disregard of logic. Such misapplications as these are to be referred to an ignorance of statistical science rather than to any defect in the science itself. The ordinary methods of applying the general vital statistics to the solution of cancer problems are unreliable. Here the question of diagnosis comes into prominence, and this, added to the fact that the data employed cannot possibly be homogeneous, is a fruitful source of false deductions. In many cases no post-mortem examination has been made, and where this is so a considerable margin of error needs to be allowed for. Dr. Wells cites figures which give some idea of the possible extent of error that may arise from this cause. In his own hospital, out of 545 malignant growths, 367 were correctly and 178 wrongly diagnosed; Bashford's statistics from a number of London hospitals showed an error amounting to 112 in 396 cases; Reichelmann reported 156 errors in 711 cases in a Berlin hospital, and similar results have been reported from Budapest, Poland, Jena, and elsewhere. In addition many cases were diagnosed as cancer where it did not exist. Although Dr. Wells goes fully into the matter, it hardly seems necessary to inquire whether there is likely to be any considerable error in connexion with statistics based on death certificates instead of post-mortem examinations; if these things are done in the green tree, what shall be done in the dry?

Turning to the influence of heredity in cancer, the author states that existing statistics are worthless. The information obtainable from patients varies greatly with the circumstances. If a patient seeks advice for what he knows to be cancer, it is probable that he will have made full inquiries as to the occurrence of the disease in his family; whereas if he is suffering from some other disease, such as peritonitis, the family history will not have interested him. Another inherent source of error is the fact that a certain proportion of the patients will develop cancer at some later date, and yet they are used as non-cancer material. Further, if we attempt to work out the heredity of cancer with statistical material, using Mendelian principles, we find that this is impossible, for a single error of diagnosis might invalidate an entire family record, and there are probably no existing families with complete necropsy records of all deceased members for any considerable periods.

considerable periods. On the whole, statistics agree in indicating that cancer has been increasing in frequency in recent years, but the significance of the fact is not yet agreed on. As the average duration of life increases and infant mortality decreases, and as diseases such as typhoid fever and diphtheria become eliminated, it would seem safe to assume that the number of candidates for cancer must increase. A high crude cancer death rate may therefore be evidence of a good state of public health. Again, with an increasing accuracy of diagnosis many more cases of internal cancer should find their way into the records than heretofore. Reasons such as these may seem sufficient to account for an increased frequency of the disease. Yet the problem is not so simple as at first appears. No tendency to increased frequency has been reported by observers who have selected for consideration only the external cancers, which are unlikely to be incorrectly diagnosed. Willcox found that the cancer increase in Frankfort for the period 1860-1913 was limited to inaccessible growths, and similar reports come from Stuttgart, Berlin, Hamburg, and Great Britain.

Dr. Wells is no less sceptical of the value of statistics in reference to the influence of civilization and the supposed increase of cancer in primitive peoples when they come in contact with modern civilization; and he sums up his reflections on the whole subject in the following terms: "After thinking about what the figures may mean, and what they really mean, and what others think they mean, I find myself unable to accept anything about cancer as finally established by statistics." One conclusion to be drawn from his investigations is that there must be a sad ignorance of the science of statistics and of its proper mode of application.

#### LISTER CENTENARY IN LONDON

In our issue of March 5th (p. 437) we announced the arrangements made for celebrating in London the centenary of the birth of Lord Lister, which falls on Tuesday, April 5th next. At the reception of delegates by the Prime Minister, which will take place at 11.30 a.m. that day in the Great Hall of the British Medical Association House, there will be a considerable number of seats available for members of the medical profession and for the general public. Members desiring tickets for themselves and friends are requested to make immediate application by letter to the Financial Secretary, B.M.A. House, Tavistock Square, W.C.1. Tickets are available also for reserved seats at the ceremony in Westminster Abbey on the morning of April 6th. The arrangements made for the celebrations by the London committee are summarized in a time-table printed in the SUPPLEMENT at page 104, where information about academic dress will be found.

### 580 MARCH 26, 1927]

FRENCH EXPERIMENTAL WORK ON TUBERCULOSIS. In would appear that more experimental work in tuberculosis is being done in France than in England, and the results of several such researches have been reported to recent meetings of the Académie de Médecine of Paris. Perhaps the apparent difference between the two countries is due to tuberculosis being a more serious disease in France; or perhaps the enthusiasm of Calmette stimulates other workers. Dr. Vaudremer recently presented a report on some further researches undertaken by himself and Drs. Puthomme and Paulin on the development of the tubercle bacillus. The experiments consisted in cultivating on gelatin tubercle bacilli which had been submitted previously to the action of substances elaborated by the Aspergillus fumigatus. They claim to have proved as long ago as 1910 that the growth of this fungus will destroy the greater part of a culture of tubercle bacilli in glycerinated broth, and with it the tuberculin. The recent experiments showed that in cultures of tubercle bacilli exposed for a few days to the products of the growth of the aspergillus there appeared, among masses of acid-resisting organisms, a number of granules, and of bacilli with a terminal granule. which had lost the resistance to acid and were colourable by methylene blue. The granules resembled in appearance Gram-staining meningococci. Ultimately the typical bacilli in the culture completely disappeared, and were replaced by zoogloeal masses of cyanophile granules. Shortly after the appearance of these masses the culture medium became cloudy; and at this point it was possible to make fresh cultures of the granules on a gelatin medium. With successive cultures the granules assumed the form of a cyanophile, granuliferous matting similar to that described by Bezançon and Philibert. The cultures on gelatin appeared to dio quickly; but if kept for some months resuscitation occurred, and amidst cyanophile granules and acid-resisting granules typical bacilli were found. In the same preparation it was possible to follow the passage from the ordinary granule to the classic bacillus of Koch. None of the elements grown in aspergillus fluid or on gelatin produced tuberculosis in guinea-pigs. To render them virulent it was necessary to grow them in a medium of animal origin, such as glycerinated ox serum. They would then kill guinea-pigs in eight days. If, however, the gelatin cultures were killed by heat, they conferred, when subcutaneously injected into guinea-pigs, a marked resistance to tuberculosis, lasting at least fifteen months. As a result of these experiments tubercle cultures simply modified by aspergillus fluids were at first used therapeutically on patients at the surgical clinic of the Salpêtrière under Professor Gosset. The treatment was applied in 128 cases of surgical tuberculosis, and 85 were followed up. The best results were obtained in osteitis of small bones, in adenitis, epididymitis, and peritonitis. The treatment was less effective in hip disease and in aged persons. Subsequently cultures on gelatin from the aspergillus fluid were used, and 260 patients were treated by this method, which gave better results, over 75 per cent. being cured, as compared with 48 per cent. under the first method.

## HISTORY OF MEDICINE.

THE Section of the History of Medicine of the Royal Society of Medicine held its last ordinary meeting of the session on March 16th, when four communications on widely different subjects were made. The first was a paper by Sir D'Arcy Power on the place of Tudor surgeons in English literature, which Dr. Kenneth Hay read for him in his absence. This showed by examples how faithfully the English surgical writers of the sixteenth century reflected the changing character of the nation during the renascence in England, which began with the introduction

#### HISTORY OF MEDICINE.

of printing into this country. The love of nature and of the open air characteristic of the period revealed itself in the opening passages of Thomas Gale's Institution of a Surgeon, and in extracts from William Bullen's Dialogue Against the Fever Pestilence. Another good example of contemporary literary style was that of William Clowes, writing on the subject of syphilis. That Master Clowes could speak his mind very plainly when the occasion called for it was shown in a paragraph of invective against the deplorable state into which English surgery had fallen in his day. This generation of surgeons-Hall, Gale, Clowes, and Read-tried an experiment which began and ended with them, and happily failed; they essaved to write in verse, and the lines quoted by Sir D'Arcy Power proclaimed them pretty bad versifiers. But the prose passages went far to substantiate his claim that the Elizabethan surgeons had a definite place in English literature at a time when our written language was being moulded ready for the hand of Shakespeare and the translators of the Authorized Version. Dr. Charles Singer next introduced to the Section a record, compiled with great pains by Professor E. Morpurge of Padua, of the many English physicians who studied in the Collegio Veneto Artista of the University of Padua between 1617 and 1771. Greater than any of these names, however, is that of William Harvey, who received his doctorate at Padua in 1602; the illuminated diploma is one of the treasures of the Royal College of Physicians of London. Dr. Singer then showed some photographs of a recently discovered example of the Egyptian god Bes, giving in detail his reasons for thinking that the original of this grotesque image suffered from spina bifida. Lastly, Dr. Herbert Spencer showed the very rare book, Wolveridge's Speculum Matricis, printed in 1671, together with two manuscript copies in the society's library-one of them beautifully written and illustrated with loving care. Dr. Spencer traced this book to a much earlier work, and told how Wolveridge's manual for midwives was itself plagiarized later under another name.

#### WILD RODENTS AND PLAGUE.

Among the communications submitted to the Standing Committee of the Office International d'Hygiène Publique at its recent meeting in Paris is one which treats of the increasing activities of wild rodents as agents in the transmission of plague. There are places in Asia, Africa, and America where rat plague, originally brought to the coast on shipboard, has made its way inland, infected indigenous wild rodents, and so established itself as a settled enzoötic in tracts previously immune. In each locality a few species only are the constant reservoirs of infection. Among them are the marmot, Arctomys bobac, in the north-east of Asia, the gerbille, Tateroma lobengulae, in South Africa, the sousliks in South-West Russia, and the ground squirrels in California. As a class they are trapped or shot with a view to the protection of crops or for their own intrinsic value, and those who pick up or handle their carcasses may contract plague from the fleas. Fieldmice, such as Rattus coucha and Arvicanthis pumilio, servo as intermediary channels of infection, bringing the disease with them from the open country into the dwellings of man. Among the fleas implicated are Ceratophyllus silantievi and Neopsylla setosa. In these areas the common rat, for once, seems comparatively blameless. It is true that he started the enzoötic at first, but having done this he does not himself, under these conditions, pass plague on to man. Plague in wild rodents shows a tendency to visceral, and especially pulmonary, involvement. It is remarked that in hibernating rodents infection may remain localized during hibernation, awakening to activity at the close of the winter sleep. Plague in man contracted from wild rodents is rather apt to assume the pneumonic form;

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CONSERVATIVE CLUB, ST. JAMES'S STREET, S.W.1.

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#### IMHOTEP

SIR,-Sir D'Arcy Power, in his review of Professor Sigerist's book on Great Doctors, says he begins " with Imhotep, who is claimed as an architect of the Great Pyramid." I venture to suggest that the beginning was an unfortunate one, for, although many "wonders" have been attributed to Imhotep, it is the first time that this picturesque legendary figure has been associated with the Great Pyramid. As alleged architect to Zoser, his name, to be sure, is connected with the Step Pyramid, but as Manetto says that Zoser and Imhotep were identical-and that cultured Greek generally knew what he was writing about-it is not easy to separate the truth from fiction. One thing, however, is certain (and I think I have made it perfectly clear in my work Egypt: the Home of the Occult Sciences), and that is, that there is no contemporary evidence concerning Imhotep as a physician, and he only first appears in that character some 2,000 years after his death, shortly before his deification -by foreigners.-I am, etc.,

214

Cairo, Jan. 13th.

T. GERALD GARRY, M.D.

I was attached to Cons. Club not ]

# THE PRACTITIONER Jisty Pears Ago

214

Education, organization, co-operation-these are the weapons of our warfare.-Sir William Osler: The Evolution of Modern Medicine.

#### JUNE, 1898

THIS number of The Practitioner is devoted in its entirety to tuberculosis "with the object of doing something to arouse a keener interest in the abatement of this terrible scourge, and stirring not only the profession but the public to effective action". "The Month" opens on a strongly worded note: "Of all the diseases to which man is liable there is none that, in point of destructiveness, can be compared with tuberculosis . . . Taking all forms of tuberculosis together, it has been computed that in France one out of every six deaths is caused by tuberculosis, and this proportion may safely be assumed to hold good for this country . . . No pestilence which visits mankind makes anything like the havoc that is wrought by tuberculosis". We are reminded that many eminent men were consumptive in early life, and yet attained advanced age. When Sir Andrew Clark applied for the post of assistant physician to the London Hospital, he was run very close by another candidate, but the scale was turned in his favour by an influential member of the governing board who said: "Oh! let us give it to this poor Scotch devil; he will be dead in six months!" Goethe, reputedly on the brink of the grave at the age of nineteen, lived to be eighty-one. When this tuberculosis number was published the tubercle bacillus had been discovered by Robert Koch sixteen years previously, but it was left to Theobald Smith to differentiate between the human and the bovine tubercle bacillus that very year. Eight years before, Koch had introduced his tuberculin treatment which startled the world, and his new tuberculin in 1897. Nine years had to elapse before Calmette and Pirquet described the tuberculin tests known by their names. The first international congress for tuberculosis was held in Paris in 1881, and the first international association was founded in 1901. As long ago as 1876, Peter Dettweiler had founded a sanatorium at Falkenstein and had introduced a portable receptacle for sputum. One of the first sanatoria in this country was opened in 1885, at Bowden in Cheshire.

This issue of *The Practitioner* consists entirely of "Original Communications", the first of which, entitled "The Treatment of Consumption", is from the pen of the President of the Royal College of Physicians of London, Sir Samuel Wilks, who has seen many cures for the disease, "arising and departing one after another; living vigorously for a short time and then dying a natural death". He concludes by expressing his belief that the only remedies for consumption are "air and sunshine—AIR, AIR, FRESH AIR". Let us skip a few pages and turn to a paper on "The Medicinal Treatment of Tuberculosis", by Hector Mackenzie, M.D., F.R.C.P., Assistant Physician to St. Thomas's Hospital and to the Brompton



E. L. Trudeau, M.D.

Hospital, which contains a bewildering catalogue of remedies, such as cod-liver oil, creosote, guaiacol, arsenic, iron, sulphur and its compounds, quinine, strychnine, nuclein, oil of cloves, oil of cinnamon, oil of peppermint, garlic, ichthyol, cinnamic acid. "Tuberculosis is a disease that must be strenuously fought by preventive measures", writes Allan Macfadyen, "and for this organized effort is necessary. An adequate inspection of cattle by veterinary surgeons and the removal of suspected animals from the dairy sheds is required in the first instance. The use of tuberculin as a diagnostic

#### FIFTY YEARS AGO-continued

agent is of the greatest value in this respect, and the neglect of its aid is inexcusable".

Some distinguished writers contribute to this symposium: Sims Woodhead, Director of the Laboratories of the Royal Colleges of Physicians and Surgeons ("The Bacteriology of Tuberculosis"); Arthur Ransome, F.R.S. ("The Susceptibility to Tuberculosis under Different Conditions"); Hermann Weber ("The Sanatorium Open-Air Treatment in Pulmonary Tuberculosis"); F. Parkes Weber ("Ocean Voyages in Phthisis''); Michael G. Foster ("The Mediterranean Littoral as a Health Resort for Phthisis"); Hermann M. Biggs, Director of the Bacteriological Laboratories of the New York City Department of Health ("The Prevention and Restriction of Pulmonary Tuberculosis in the City of New York"). To those who were stationed in Egypt during the last war or were privileged to winter in that country in the pre-war days, the article by F. M. Sandwith, M.D., M.R.C.P., Physician to Kasr-el-Aini Hospital, Cairo, on "Desert Climate for Lung Tuberculosis", will carry a nostalgic flavour. His reference to Mena House at the foot of the Pyramids, seven miles from Cairo, will evoke many pleasant memories: "The popularity of the hotel seems to increase every year in consequence of the extreme purity

of the air, the calm repose of the desert, the sport in the neighbourhood, and the unique interest of the spot . . . The hotel management does everything it can to attract English visitors". How reminiscent of a guide-book this sounds! An eloquent rival claim is put forward by A. P. Hillier for the climate of South Africa: "If, then, in conclusion, abundant sunshine, a dry, rarefied, and exhilarating air, and a pleasant, sub-tropical temperature be, as all modern physicians are agreed, conditions highly favourable to the phthisical subject, it must be freely admitted that there is no country in any of the five continents that offers these features in greater perfection than South Africa".

It is singularly fitting to be presented with an historical retrospect of tuberculosis fifty years ago, for in October this year the English speaking world will commemorate the centenary of the birth of a great and beneficient pioneer in tuberculosis—Edward Livingston Trudeau, a man who, in Sir William Osler's words "had the good fortune to be made of the stuff that attracts to himself only the best, as a magnet picks out iron. Of an unselfish, sympathetic disposition, he secured the devotion of his patients, to whom he was at once a tower of strength and a splendid example". W.R.B.



# LACARNOL IN CARDIAC DISEASE

214

Lacarnol is most satisfactory where blood pressure is normal. It is best given on an empty stomach. THE result of lacarnol administration by mouth in 114 cardiac cases is described by Dr. G. Hubert, of Bad Nauheim, in *Fortschritte der Therapie*, 1931, No. 14. Lacarnol is a nucleoside tissue extract, with a selective dilator action on the coronary arteries.

The series was composed as follows :----

83 with angina pectoris;

16 with angina pectoris associated with aortic lues;

- 13 with myocarditis and disturbance of rhythm;
- 2 with myasthenia associated with pressure sensations.

Of the total number of patients, 68 (58 per cent.) showed definite improvement. The remaining 42 per cent. were uninfluenced, but a closer examination of the cases offers some explanation for this fairly low percentage of successes. Out of the 83 sclerotic angina pectoris cases, 61 responded to lacarnol by a reduction or complete cessation of the attacks, while in 19 there was no improvement. Thus the percentage of successes in this group was 76. On differentiating the patients into those with high and those with normal blood pressure, the result is even more satisfactory. In 60 angina pectoris cases, where the systolic pressure did not exceed 165 mm. Hg, the author obtained the desired result with lacarnol in 54, that is, in 86 per cent.; only 14 per cent. therefore remained uninfluenced.

#### High Blood Pressure Cases.

Out of 9 cases where lacarnol was ineffective, there were very grave complications in 3, and of 23 patients with angina associated with permanent high blood pressure, only 7 (i.e., 35 per cent.) responded to lacarnol.

The preparation was completely ineffective in 16 cases of syphilitic angina pectoris. In his 13 cases of myocarditis, the author was unable to verify any influence on the cardiac rhythm, though Fahrenkamp, Buchholz, and Veil claimed<sup>1</sup> that lacarnol had this effect. There was, however, in 2 cases an immediate cessation of extrasystoles which had previously persisted for years.

Many patients are equally unresponsive to nitroglycerin, the purin bodies, and glucose; on the other hand, the author had one patient who for years had been treated on these lines without success, and who was completely cured of angina pectoris (no relapse during a period of 18 months) by the prolonged administration of lacarnol alone.

<sup>1</sup> See CLINICAL EXCERPTS, July-August, 1931, p. 135.



FROM THE PSALTER OF THE MONASTERY OF ST. MARK, FLORENCE. Showing a mounted double eye-glass in the 14th century.

Nero's emerald, recorded by Pliny (23-79 B.C.)—Nero princeps gladiatorium pugnas spectabat smaragdo—is often cited as proof that the eye-glass belongs to antiquity, but Prof. Greef considers it was used merely as an eye-shade, for its green "antidazzle" property.

The first steps towards the discovery of the lens as such were made by the Greek astronomer and mathematician Ptolemy in Alexandria, in the second century A.D. He recognised that light was distorted by curved transparent surfaces.

Eight centuries later, the Arabian Alhazan (966–1036) described, in his "Optice Thesaurus," how a segment of a sphere might be used to magnify an object. But another couple of centuries passed before that rare spirit, Roger Bacon (1214–1294), saw the possibility of adapting this knowledge of segmented globes for the aid of weak sight in the aged.

Thus about 1300 convex spectacles were invented; at least, it is chronicled in the archives of the St. Catherine monastery in Pisa that about this time A. de Spira was manufacturing eye-glasses,

although it is not claimed that he was the first to make them.

Thereafter the use of magnifying glasses, so-called "reading stones" (lapides ad legendum), spread gradually throughout Europe. It was a difficult matter to obtain colourless glass in those days, so the "reading stones" had to be made of quartz, rock crystal, or beryl. (The modern German word for spectacles — " Brille " — is evidence of the beryl.)

Spectacles, as well as "reading stones," are mentioned in a decree of the Privy Council of Venice



ITINERANT SPECTACLE-SELLER. By A. von Ostade (1610–1685.)



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ITINERANT SPECTACLE-SELLER. By A. von Ostade (1610–1685.)

dating from the year 1300, and 52 years later a pair of spectacles makes its first appearance in portraiture in a painting by Thomaso di Modena of the cardinal Hugo de Provence. Thereafter many types of spectacles appear in paintings. Our first illustration, from a fourteenth century psalter of the Convent of St. Mark in Florence, shows the use of a double glass.

Writing in 1363, Guy de Chauliac, in his Chirurgia Magna, recommends spectacles for weak sight.

Towards the end of the century jointed glasses were in use, that is, two glasses mounted on rods, which were riveted together at their

distal ends. This type persisted until about the end of the sixteenth century. Meanwhile, towards the close of the fifteenth century, the first pair of leather spectacles was constructed, to be followed by various modifications of the framework, such as headpieces or bands. In 1517 Leo X was portrayed wearing concave lenses, by Raphael. and from 1540 Hollerius regularly recommended spectacles for short sight.



JÖNG SYRLIN LUCAS, ABOUT 1480.

Kepler, in 1604, propounded a complete theory on the use of spectacles.

With the seventeenth century the "pince-nez" or spring spectacles became more common, and a little later, originating apparently in England, we find the prototype of the modern form with earpieces, with many variations occasioned by different modes of peruke worn.

The evolution of the lorgnette was an obvious step from the single glass. But not only did the style of the framework change throughout the centuries; the optical powers of the lenses were continuously improved and adapted to various forms of weak sight. In 1792 Wells wrote "an Essay upon single vision with two eyes," in which he advised the use of prisms for presbyopia, and in 1804 Wollaston recommended menisci as glasses for the same purpose. We owe the perfection of the cylindrical and prismatic glasses to Donders in 1860, and the most modern improvements begin with Gullstrand in 1899.

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#### THE JOURNAL OF ORGANOTHERAPY

advantageous for growth in height. Perhaps this factor is important for a certain racial difference between coastal and inland peoples. The coexisting asthenic and arthritic habitus types in our people, however, must be attributed to other causes.

(To be continued)

# Practical Therapeutics

# Parathyroid Hormone and Dyspepsia

HE function of the parathyroid glands in exerting an effect on the calcium metabolism is now generally recog-Active preparations of the paraized. hyroids have been produced by Hanson 1924) and by Collip (1925). On injection these extracts raise the calcium level of the blood. The effect seems to be due to an lteration of the chemical characteristics of he calcium compounds found in the tissues. ines in England described an effect on the nization of these compounds, and in pathoical conditions in which the normal nization ratio was disturbed administration parathyroid restored the equilibrium to rmal. The determination of the state in ich the calcium compounds exist in the od is difficult, and the usual methods are from accurate. Estimates of the degree onization (of the several compounds) - probably not more than 2.5 mg. per (Morgulis and Perley).

he relationship of calcium metabolism to ous affections of the stomach and duoal mucosa is far from clear. Vines has reported successful results with parathyroid substance in the treatment of gastric and duodenal ulcers. Durand and Zana (abstract below) report good effects in dyspeptic disorders.

The marked and constant effect of parathyroid hormone on blood calcium suggests therapeutic possibilities that so far have not been realized by reason of limited clinical experience with this potent substance.

Parathyroid Extract for Gastric Therapy. — G. Durand and Zana. (Abstracted in *Bull. gén. therap.*, 182: 303, 1931.)

The authors derived very satisfactory results in cases of dyspeptic disorders of long standing with the exclusive use of subcutaneous injections of parathyroid extract. The cases involved were not ulcerous and had dominant sensations of epigastric or gastro-esophageal pyrosis.

Without desiring to draw too extensive conclusions from the results of treatment the authors point out, nevertheless, that there occurred a rapid disappearance of the symptoms of disorder after commencement of parathyroid treatment and that all methods of treatment previous to this had been entirely ineffective. THE DOCTOR'S PAGE

214

# The Doctor's Page



# THOMAS ADDISON (1793-1860)

The fame of Thomas Addison is supported by a small volume of work, for his name is associated only with two disease processes, pernicious anemia and suprarenal disease, and

strated beyond all question the presence of these active sex hormones, both male and female.

They may be extracted and produce constant effects. In the case of the ovarian follicular hormone, it has been prepared in crystalline form and shows a potency that is truly astonishing. Both, male and female hormones may be given hypodermically or by mouth, and the literature contains sufficient evidence of the clinical value to warrant a much wider use. Novak has outlined a method of treatment using both ovarian hormones that is in accord with the recent research showing the interaction of the follicular and luteal hormone. Whole ovarian substance would now appear to be more promising as a therapeutic agent than purified preparations of either follicular or luteal hormone. Hofbauer (abstract below) outlines the uses of whole ovarian substance. It is worthy of note that Hofbauer, as Graves of Boston has done, emphasizes the use in the menopause. This seems to be a field in which whole ovarian substance is particularly effective. Note Hofbauer states that the preparation should be used "when it contains all the active constituents of the ovary."

The Action of the Sex Gland Hormone on Total Metabolism. — R. Hofbauer. (Zeitschr. ärztl. Fortb., 25: 110, 1928.)

The indications for the use of whole ovarian substance when it contains all the active constituents are:

(1) The treatment of complaints of the menopause. A disappearance of all symptoms

is observed: palpitation of the heart, perspiration, dizziness. The women again become vigorous and able to work. The effect of ovarian substance is partly an inhibiting one on the sympathetic.

(2) Treatment of obesity as it may exist in the menopause as well as in young women with lowered sex gland function. Through intensive use of ovarian substance with any diet, a considerable loss in weight may be attained in many cases.

(3) Treatment of Basedow's disease. Here, the lipoid content of the ovary probably acts in so far as it appeases the two strongly acting thyroid hormone and in some measure detoxicates.

(4) Genuine epilepsy, which is of angiospastic nature, is also considerably improved by sex gland preparations.

Therapeutically, tablets as well as injections are recommended.

The authors carried on experiments to determine whether the metabolism and blood pressure are to be influenced by sex gland hormones. He made the observation that all patients felt unusually well following treatment with sex gland extracts. With a food intake of 1700 to 1800 calories daily weight decreases of 12 to 14 pounds were attained on the average within  $\hat{9}$  weeks, without any disturbances whatever of the general state of health appearing. In men, the loss of weight in 10 weeks was on the average about 20 pounds, while appetite generally increased. In men as well as in women, a definite fall in blood pressure was obtained. In all probability an antagonism between suprarenals and sex glands plays a rôle here. In any case, a fall in blood pressure of 20 to 30 mm. may be obtained.

#### THE FAMILY PHYSICIAN

"It has been my good fortune to have intimate knowledge of physicians from childhood—personalities who went by the old and fortunate name of the family physician, the man who was elder brother and counsellor, who was almost as much nurse as doctor, who cared mightily for every patient, who stopped at nothing, whose tenderness matched his skill, and whose devotion went parallel with his service. To have those contacts, to have those memories, to have those relationships is itself a liberal education. That is why I prefer, speaking as a layman and for the patient, to dwell not on the technical aspects of medicine, not any of the new scientific discoveries and methods and possibilities, but upon that larger view which sees the modern physician as the trained man of science and public service, rich in personality, serene and secure in the feeling that others depend upon him, and holding himself for one of the highest and most satisfying services to his kind. The very verb 'to heal' sounds like a benediction."—Nicholas Murray Butler, in Clinical Excerpts.



214

# The Doctor's Page

# GREGOR JOHANN MENDEL (1822 - 1884)

Monastery walls have been quite effective not only in secluding the inmates from the whirl of the outside world but also in exclud-

these walls have withheld concerning the life and work of the Augustinian monk and abbot, Gregor Johann Mendel, and how much ing the prying interest of outsiders as to what they are responsible for the concealment is being done within the confines. How much of the results of his researches until the rediscovery almost twenty years after his death can not be determined definitely. Some service they did render him, however, namely made possible the success of his experimentation and afforded him a position of distinction to augment the value of his work.

Not much is known of Mendel as a man for his intimate letters to the family were few. Women, to whom he might have confided his secret thoughts and ideals were automatically barred by his choice of life. Letters to friends and fellow-workers were all mainly concerned with the work in which he was intensely interested. The letters of the closing years of his life, particularly to his nephews of whom he was very fond, are those of a kindly, peaceful, fatherly advocate; they are attractive bits of composition especially for the wit which formed an element in Mendel's make-up. A short autobiography gives little more than his letters. However, to a resident of Brünn, Hugo Iltis, we are indebted for a splendid accumulation of facts concerning the life and work of Mendel.

Johann Mendel was born in Heinzendorf, in northeastern Moravia, near the union of the German, Polish and Czechoslovakian borders, into a peasant family. From his father he acquired an intense appreciation for the growing things of the earth. His mother instilled in him an aim to a higher social standing. From her he seems to have derived a fine artistic sense. At her instigation he was sent to the gymnasium at Troppau where he showed himself to be a fine student. The cost of enlightenment, however, eventually drained the family resources, and since there were other children in the family to be considered. Mendel was left to seek his own support. His greatest desire was education and therefore, in 1841 he entered the college at Olmnetz; but the efforts expended in acuiring sufficient funds for the undertaking egan to exact their toll with the result that Iendel's studies were continually interrupted. v breakdowns. After two such years of interittent study and illness he decided to enter e Augustinian order and as a novice he was ven the name Gregor.

He was particularly fortunate in the choice f abbey, for the abbot of Brünn recognized is bent for natural science and encouraged is scientific work and liberal ideas rather han cared for his soul, though, as a result of series of *faux pas* and too liberal expression regor was properly chastised, specifically

for having remarked that a "visiting bishop was more distinguished by his fat than by his learning."

Gregor was assigned to assist in the instruction of physics at the Technical High School. His tranquil nature and sly wit made him popular so that eventually the abbot sent him to Vienna to try for a Teacher's Certificate. Gregor failed the examination, it is said mainly because of the antagonism of the board of examiners. The abbot, of course, was displeased, but his faith did not waver. He sent Gregor to the University at Vienna for further preparation. Here the monk seemed to fare well and with the exception of having purchased, so he says, a lottery ticket, he apparently devoted himself solely and diligently to the pursuit of studies. Some time later he again essayed the examination for the certificate, but rumor has it that he returned to Brünn with head wrapped in bandages, a hazy recollection of having been in Vienna, but no teacher's certificate. In fact, he never obtained it.

At the convent Mendel spent much time in the laboratory in which he kept birds, mice, a fox, and a porcupine. In the garden he kept bees, grew flowers and shrubs in profusion and in a hot house, such unusual fruit as the pineapple. These growing things he referred to as his children, indeed he cared for and nourished them beyond imagination. Besides his experiments and instructive occupation, reading occupied much of Mendel's time. Darwin's books, of course, were forbidden to good catholics, but this free-thinker, in some way, managed to procure them and read them with profound consideration. He was also attracted to the study of astrology and for years, even up to the close of his life, he kept a meteorological record.

In 1868 Mendel was elected abbot of Brünn. He then gave full sway to his experimental bent. Things grew in profusion all over the laboratory. The garden was greatly increased and became a veritable paradise of sweetsmelling and rare blooms. He also indulged in a life of ease and good eating, entertaining guests much after the fashion of the abbots of former days, for he was a lavish host.

The experiments of this unusual cleric scientist were always shrouded in mystery, which was the source of comment and discontent among both associate monks and laity. As time went on there occurred several

(Continued on page 307)

# Medical Subjects by Famous Masters



"A BARBER SURGEON REMOVING A PLASTER FROM A MAN'S FOOT," by David Teniers (1610-1690) By permission of J. Philip Kruseman, Publisher, The Hague, Holland

#### FROM THE HEAD MASTER,

#### HARROW SCHOOL,

HARROW ON THE HILL.

Rof a - 11.50

8th June 1956

Dear Inspector General,

Many thanks for your letter. I was so sorry not to be able to come to the meeting, but am most glad to hear that you had such a happy one and that you managed to fill the offices.

No, I am not able to get down to the Old Breconian Dinner on the 16th June. I had an invitation some time ago but had already told my brother that I could not get away on that day. The chief reason in fact is that I have a meeting of the Old Harrovian Lodge at the School on the Saturday evening and it is plainly essential for me to be here for 'that, quite apart from the fact that I am I.P.M.

#### BYRON 2184.

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214 APPOINTMENTS FOR 1954 192 Aug 2 ( wedding a missimpp a Board Memphis Lea 11 (Monmall shiphuides so Christipher Barley muriner Daple 1 Slagenpas Chalm Sarah mae marter always write 'TABLOID' in full



214

# Guild of Saint Mary Magdalen.

The Seal of The Barber-Surgeons from the original Seal preserved in the Library of Trinity College, Dublin dating from 1557.

Apothecaries, or Guild of St. Luke, Evangelist, 1747. From a replica of the old silver Seal made some years ago from the original.



See, where the proud Apothecaries drive, Who most by fraud and impositions thrive, Whose monstrous bills immoderate wealth procure, For drugs that kill as many as they cure, Well are they placed the last of all the rout, For they're the men we best can live without.

> [Extract from The Guilds of Dublin by John J. Webb, M.A., LL.D.]

# **TOBACCO IN MEDICINE\***

214

NE of the strange sights which met the astonished eyes of Christopher Columbus when he landed on the island of Guanahami on October 12th, 1492, was a group of red-skinned men who puffed thick clouds of smoke out of their mouths and noses. With this begins the amazing story of tobacco, but it is only intended in this article to describe the connexion this herb has had with medicine.

#### Early Medicinal Uses.

A monk, Fray Romano Pane, whom Columbus took back with him on his second journey to America in 1496, described in detail the use of tobacco by the Indians of Hispaniola. He wrote that they breathed in the smoke of burning tobacco through a forked tube, and "at their feasts they become intoxicated through inhaling the smoke." He



From Americae Partes. Smoke as a Cure for Illness

also observed that smoking has a narcotic effect, being associated with dreams "which seem to give glimpses of another world." Francisco Hernandez of Toledo, Physician to King Phillip II, was sent to Mexico four years later, and he also wrote of the effects of tobacco smoking : "It encourages sleep, banishes lassitude, relieves pain, especially headache, promotes the secretion of phlegm, cures asthma, and strengthens the digestion. In excess it is harmful, causing inflammation of the liver. Cachexia and other incurable complaints result from its misuse."

The Carmelite monk, André Theyet, observed in 1554 that when Indians were on the warpath they smoked continuously in order to

<sup>\*</sup> Historical Sketch by Dr. H. V. Bühler : Münch. med. Wschr. 1937, 33, 1297.

take the edge off their hunger and thirst. The native witch-doctors used tobacco to cure illness, especially to promote sweating. Their patients were made to smoke continuously, and tobacco smoke was also blown into the rectum, and into the noses and ears of the unfortunate sufferers. According to the views of the day, tobacco smoke purified the humors of the body, opened the sweat ducts, and assisted other bodily functions.

Lescarbot<sup>†</sup> mentioned that the Indians of Arcadia and New Scotland used tobacco smoke for alcoholic stupor. The bladder of some animal was filled with smoke, and by means of a tube leading into the rectum smoke could be expressed from the bladder into the rectum of the drunkard. The Spaniards began to copy the natives' use of tobacco, and the fresh leaves soaked in water were commonly used as a local application for ulcers and abscesses. Tobacco leaves soaked in beer, on the other hand, were found to disperse swellings and warts. Fresh leaves laid on the abdomen served as vermifuges.

# Tobacco's World Tour Begins.

Tobacco seeds were first brought from America into Spain by Gonzalo Hernandez of Oviedo, but for some years the plants were only used for decorative purposes. Nicolo Monardes, teacher of medicine in Seville, was the first to praise the medicinal value of the herb. "The application of the warmed green leaves is good for headache, colic, gout, and the pangs of childbirth. Juice expressed from fresh leaves relieves toothache." An infusion of the leaves was said to cure asthma, persistent cough, and "other conditions arising from an excess of the cold humor." In small doses the juice was praised as a vermifuge. In obstinate cases of constipation a bowel wash-out with a decoction of tobacco was recommended. Fresh leaves were excellent for hæmorrhage and promoted healing. Ointments containing tobacco cured indolent ulcers, and when taken internally in pill form hunger and thirst were assuaged.

The fame of tobacco quickly spread to France. The name of Jean Nicot, who was French ambassador at the Portuguese Court from 1559 to 1561, is for ever associated with tobacco. While in Portugal, Nicot was supposed to pave the way for the betrothal of the 5-year-old Portuguese heir with the Princess Marguerite de Valois, whose first teeth had not even appeared when the subject of the union was broached. It was the enforced leisure which this project provided that led to the discovery which made Nicot's name world famous. Nicot was fond of rare flowers, and one day while walking in the gardens of the Portuguese Royal Household he came across tobacco plants in flower. These pleased him so much he transplanted a few into his own garden. The plants flourished, and he began

† Histoire de la Nouvelle France, Paris 1609.

214

to use the leaves medicinally. Incidentally he cured a stubborn ulcer on the nose of his own chef. Soon his fame rang throughout the country, and many were the requests made to him for the wonder-working

leaves. Catherine de Medici herself asked him for seeds, and Nicot sent them to Paris for her. Later he personally brought more seeds to that city.

Soon tobacco found general use in France as a curative agent. Smoking for its own sake was not yet the vogue; the nearest to it was the drawing into the mouth by means of a horn funnel the smoke of leaves burning on a small charcoal brazier. This was done to increase the flow of saliva. The custom of snuffing tobacco powder, however, soon became general. It gained impetus from the fact that the king, Francis II. often suffered from unbearable headache, and his



After H. Goltzius. Iean Nicot

mother, Catherine, ordered from her physician powdered tobacco leaves to relieve his distress. The treatment was markedly successful, and forthwith the whole Court began to indulge in "the healthy habit of snuff-taking."

### The Habit Takes Root.

At the end of the sixteenth century the smoking of tobacco was already common in England. In spite of regal and parliamentary edicts against the habit, it increased more and more, and soon England had the leading share of the tobacco trade of the world. The herb was marketed in forms suitable for smoking, chewing, and snuff-taking. In medicinal circles in this country tobacco gained a reputation as a prophylactic against scurvy. Smoking was also recommended by doctors as a protection against the plague during the great epidemic in London in 1665.

The fame of the wonderful new herb came to Germany in 1549 through Adolf Occo, a philosopher as well as a physician. He brought the seed of the plant back from Italy after he had learnt there of its medicinal uses. Its use soon became widespread, and many learned dissertations dealing with its wonderful properties appeared during the last years of the sixteenth century. Tobacco smoking was first seen in Germany during the Thirty Years War, when English auxiliaries

smoked on their march through Saxony to the aid of King Frederick of Bohemia. English and Dutch soldiers were also responsible for the introduction of tobacco smoking into the districts of the Rhine and Maine.



Dutch Smoking Scene

David Teniers

## Objections are Overruled.

In 1642 the contemporary German author Hoscherosch wrote that "the hellish habit of smoking" had a hold on those of high and low station. It appears that women also smoked at this time. Soon both temporal and spiritual authorities were inveighing against the custom, and ordering the punishment of offenders. In Switzerland, where the custom had been introduced from Germany, smoking was strictly prohibited by an order of 1661. The crime of smoking was ranked with that of adultery. In Austria and Hungary, similar regulations were issued, also in vain.

Spanish priests introduced into Roman society the habit of snufftaking, and because so many Italian ecclesiastics became addicts, Pope Urban VIII issued a decree threatening to expel from the Church any priest who took snuff. Later Pope Benedict XIII, himself an addict, annulled this ban.

The writings of several Dutch and German physicians in praise of tobacco helped considerably to spread the custom of smoking throughout Europe. With no mean exuberance they recommended tobacco not only for all the diseases under the sun, but also for the "Get Fit" movement of the day. Beintema, a physician in Palma, wrote of the value of tobacco for the mental worker : "A man who studies must of necessity smoke much tobacco, so that the mind will not wander and so that when the activity of the mind begins to lessen,

214

it can be stimulated to renewed activity. To smoke twenty pipes a day is not too much." Cornelius Bontekoe, Physician to the Court of Brandenburg, wrote several papers in praise of tobacco. "Nothing is so necessary for life and health as the smoke of this royal herb, tobacco,

which man can enjoy in solitude, and with the help of which he can face his troubles and overcome them. Tobacco cannot be praised enough, for it can be smoked from early morning until dewy eve."

It is not surprising that many doctors took a firm stand against the widespread misuse of tobacco. There are extant the writings of several seventeenth century physicians, who inveighed against the abuse of the herb; but the powerful tobacco trade overcame all resistance.

#### A Last Therapeutic Flourish.

Gradually the cultivation of tobacco became a science of its own, and its widespread use resulted in its becoming one of the

most important items in world commerce. As knowledge increased so tobacco as a medicine fell gradually into disuse. Up to the beginning of the eighteenth century tobacco was fairly frequently prescribed in various forms for divers ailments. Most commonly, wounds were treated with fresh tobacco leaves. Dandruff was cured with powdered tobacco. Lice were killed with decoctions of tobacco leaves, worms were dealt with by the application to the stomach of green leaves, which were also applied to the throat when that organ gave trouble. Lying-in women put the fresh leaves on their breasts in order to promote the flow of milk. In cases of colic, obstruction, and strangulated hernia, and to revive those overcome by alcohol, water in which tobacco leaves had been boiled was given as an enema, and the old Indian remedy of blowing tobacco smoke into the rectum was also applied.

There are on record particulars of attempts to cure tetanus, apoplexy, paralysis, and diseases of the breasts and kidneys with tobacco in some form or another. A book by Fowler, published in London in 1785, contains particulars of the various preparations of tobacco to use in cases of œdema and retention of urine. Toothache was treated



Old Japanese Woodcut. A Geisha Smoking

with an infusion of tobacco leaves. Even to-day in many rural districts tobacco juice is inserted into the cavity of the aching tooth to ease the pain.

The disadvantages and dangers of the indiscriminate use of tobacco

mus practicus Iohannes Heurnius Syrugum ad Afthma protherapeu ccipit

Nicotianæ ficcæ M iiii Hyflop. Calamenth. Praffijana M.s. Capill. Vener. Scabiof. ana M. j. Ficuum ficc. Dactyl. pingv. ana N. x. Fœnugr. Rad. apij, & fœnicul ana 3s. Sem. anisi. foenicul. urtic.ana 35 Rad. ireos 3 ij glycyrrh. 3 x ntur in f5 mg aquæ usque ad tertian in therapeutics were gradually learnt. The toxicity of tobacco came to be recognised, and s o m e conscientious physicians recorded deaths which occurred as a result of tobacco "cures."

Soon rapidly the growing science of Chemistry was called in to analyse the potent substances in the tobacco plant. Nicotine was demonstrated by Posselt and Reimann in 1828. Heidelberg in The chief dangers associated with tobacco came to be recognised, and from this time the gross physical damage which tobacco used to cause could be avoided. As a therapeutic agent tobacco fell completely out of use. It is probably fifty years ago since tobacco was occasionally

A nicotine prescription for Asthma: from Tabacologia, by Johannes Neander, 1622.

20

prescribed for worms, although it is still recommended by some veterinarians. Likewise in folk-lore, tobacco as a medicinal herb has been abandoned. In fact, the therapeutic use of tobacco is now of interest only from a historical point of view.

The illustrations (except for the prescription) are reproduced by kind permission of George G. Harrap & Co., Ltd., from "A History of Smoking," by Count Corti.

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214

56

23

might be to give smaller doses more frequently. The treatment was continued for from five to eight days according to the severity of the case. In lobar pneumonias treated early striking changes in the temperature chart were seen; in the morning after the beginning of treatment the temperature was almost normal, and it rose during the day to a point slightly lower than the maximum before treatment. Each morning a fall in temperature was noted and each evening a rise occurred, but the rise was less on successive occasions, until on the fourth or fifth day the normal level was reached and maintained. In addition, symptoms such as cyanosis, dyspnœa, loss of appetite, and restlessness were much less marked. Despite the general improvement and the shortening of the febrile period, however, the physical signs did not disappear any more quickly than in untreated cases.

In broncho-pneumonia the temperature behaved in a manner corresponding to that in lobar pneumonia, but the time taken to reach normal varied from two to five weeks; here again the symptoms were much less troublesome. Vitamin C was also used as a prophylactic measure, 1-3 doses of 100 mg., or two lemons, being given daily in patients preparatory to operation on the mouth or throat, and in those suffering from chest injuries and emphysema. In all, 37 cases of pneumonia, some post-operative, were treated in this way and 2 died from pneumonia; 122 were treated prophylactically, and 6 suffered from mild and non-fatal broncho-pneumonia. It is as yet too early to draw comparative conclusions between groups of treated and untreated patients in an effort to assess the value of this method.

Reflecting that the Christmas season is an excuse for, shall we say, a little innocent fatuity, we have commissioned a professional

### An Xmas Booklet

humorist to write a booklet (enclosed in this issue) about medicine from the patient's point of view. Having thus introduced Mr. A. H. d'Egville, whose contributions will be well known to *Punch* subscribers, we

leave him with a blessing to the mercy of our readers. We are thinking here of those readers who do *not* make a practice of shaking, with a deft flick of the wrists, all the unbound contents of CLINICAL EXCERPTS (including valuable "blotters") into the waste paper basket. We have previously sent out another booklet of this kind. One of our forty thousand readers told us that it was the funniest thing she had ever read. We will not weary you with what the others said, and did not say.

# THE DOCTOR AS A TEACHER OF COOKERY

214

Since the discovery of the life-giving properties of vitamins at the beginning of this century much more popular attention has been given to questions of diet and the hygienic aspect of cookery. It is now quite a common thing for doctors to devote a good deal of study to the choice of foods and their mode of preparation, and in Paris (the home of gastronomy par excellence) there is an Institute of Alimentary Hygiene presided over by a well-known physician, who gives a practical course of instruction in what he has named "gastrotechnics." If we carry our researches back to primitive times we find that doctors have, in almost every period of history, paid considerable attention to questions of diet.

#### In Greece and Rome

Mnesitheos, a doctor of Athens, in his book "On Food," observes that oysters and mussels are hard to digest and so should be eaten roasted, and warns likewise against wine of inferior quality, railing against the practice of drinking wine with sweetmeats. The Roman writer Celsus, in the introduction to his encyclopaædic work "De Medecina," says: "Of the three divisions of medicine, that dealing with the healing of diseases and called 'dietetics ' is the most difficult, but also the most splendid." "Dietetics " here is taken in the broader sense of "the teaching of a rational way of life," but we see that

lste Doctor recedit iterum non rediturus, quia in venerat istos nobiles egrotantes comedentes fructus et alia mali nutrimenti sine confilio suo.



Doctor abandons Patient who ate forbidden food.

Vaquete de Nobles Cavalleros, 1540.

ZIH

questions of alimentary hygiene are definitely being accepted as part of the science of medicine. The Greeks had treated dietetics strictly from the hygienic point of view, but with the growth of opulence in Rome the customs changed, and the people were no longer content

with the simple diet of their We find many forefathers. medical writers dealing with methods of preparing repasts, but often it is clear that the authors, though undoubtedly drawing upon their medical experience, deal with their subject as appreciators of good cheer rather than as scientific observers. Thus we should not forget the existence of special chambers called "vomitories" to which surfeited guests retired to submit themselves to specially trained slaves, who, by the use of feathers and emetics, endeavoured to get their lords into such a state that they could safely continue with the



The Cook's Uniform. Larmessin, 17th Cent.

banquet. Celsus declares "a healthy man may quite well from time to time take part in a banquet" and, "it is best to begin the meal with salted fish, vegetables, and similar things, then can one best enjoy roasted and boiled meats. Sweets, such as dates, fruits, and other dainties do not harm a healthy stomach."

The oldest known cookery book dates from this period. Caelius Apicius, by some declared to have been a doctor, a celebrated gastronomist of the time of Augustus and Tiberius, published "De Arte Coquinaria." In the second century Galen writes on "the slimming diet " and on " meats which engender good and bad juices." He soundly reproves those who partake not wisely but too well of the pleasures of the table, but it is more against the glutton that his invectives are directed. When he goes into detail, we find him praising the refinements of the culinary art, and giving long lists of delectable dishes invented by the master-cooks of every land known to civilisation.

#### Invalid Cookery Begins

In the twelfth century we find in the "Summula de praeparatione ciborum et potuum infirmorum" by Petrus Musandinus, a physician of the Salerno school, recipes for nourishing and easily digested foods, descriptions of appetising dishes, directions for the preparation of meat extract (from chickens), advice regarding the tasteful presentation

of food for invalids, in pleasing receptacles. . . In certain cases of very delicate patients he advises a light repast of chicken stewed in rose water.

Maitre Aldobrandin of Sienna, physician to Saint Louis, King of France, wrote in 1256 a work entitled "Livre pour la santé du corps garder" (on the preservation of the health of the body) which is a careful study of the properties and nutritive value of ordinary articles of diet according to the ideas of the age. He displays a disinclination to approve of a meat diet and a certain caution in regard to the use of vegetables and fruit. "Beef is dry by nature, engenders



Invalid Cookery in Action.

Neues Kochbuch für die Kranken, G. Ryff, 1545.

much blood and melancholy and when digested well by the stomach it gives good nourishment, but is not good except for those with hot and strong stomachs. It gives rise to many melancholy maladies including dropsy, spots on the face, even that leprosy which medicine calls leprous elephantiasis, and canker."..." Broad beans are of two kinds, green and dry. The green provide gross nourishment and engender wind and are bad for the stomach, therefore should be avoided by those having a tendency to flatulence. The best beans to use are those neither young nor old, and those cooked in water are better than those cooked on the hot cinders as the water lessens flatulence. To improve them prepare them if you like with mint, parsley, or sage."..." Apples ... those which are green and sour strengthen the

214

stomach, but should be eaten by those who have a cold stomach for the nature of the juice. But by the nature of the substance they engender phlegmatic humours from which fevers, worms, and pains in the sides may result. But they are good for those who have indulged in an abundance of cold undiluted wine."

# The Sixteenth and Seventeenth Centuries

Invalid cookery now begins to receive more and more attention. In a very interesting French work written about 1393 by a Paris bourgeois, a "Treatise on Domestic Morality and Economy," we find a delightful recipe for barley water : "Beverage for the sick . . . Sweet infusion. Take water and boil it, then put for each sextier of water a good spoonful of barley and do not mind if it has some of the husk on it. Add as much liquorice as will go on two parisis (a small silver coin), perhaps also some figs, and boil all together until the barley splits. Pour through two or three pieces of linen and put in each goblet a good amount of rock sugar." Later we have the cookery book of Hieronymus Bock, famous as a preacher, botanist, teacher, and doctor. This work, published at Strassburg in 1550 was dedicated to

Prince Wolfgang of the Rhine Province and the full title may be rendered as follows : " The German larder. What healthy and sick people need for their nourishment. Also how all food and drink for diet and cure should be prepared." The book is of great interest, not only for its own sake but for the light it throws on the culture of the time. Another important work is the "Portrait de Sante," published in 1606 by Joseph du Chesne, physician to Henry IV. This is a medical manual of cookerv in prac-



A Caricature of Dr. Pierre de Montmaur Teaching Cookery.

tically the modern spirit, a careful gastronomical handbook following the principles of hygiene. Du Chesne considers raw fruit to be particularly good for the health and recommends it especially as hors d'œuvres. On the other hand he has nothing to say in favour
of truffles, mushrooms, and such-like delicacies, terming them "excrement of the earth." He prefers poultry and game-birds to any other form of meat diet, calling them the healthiest and best nourishment for the body. Sugar he holds to be bad, as it "heats the blood and spoils and blackens the teeth," and he strongly disapproves of iced drinks.

#### Doctors Retreat from Cookery to Dietetics

The art of cookery now makes great progress, new specialists come to the fore, and the doctor is less frequently called upon for his culinary



Santorio Testing himself.

La Medicina Statica.

advice. Pierre de Montmaur, a French physician of the beginning of the seventeenth century. actually gave practical courses of cookery not only to the ordinary public but to cooks as well, but he was made the subject of many lampoons and caricatures. With the widening fields of medical investigation the elements of a real science of dietetics were gradually evolved. Already in the early seventeenth century Santorio, a Venetian investigator. had been elaborating a series of interesting experiments with instruments of his own contrivance in the attempt to formulate the processes of food assimilation. The majority of these experiments were carried out on himself, and though his apparatus was not exact, and his conclusions were vague, his work was extremely valuable by reason of the new possibilities

of investigation which it foreshadowed. Dr. W. Stark, of St. George's Hospital, London, carried out similar experiments with the definite view of differentiating harmful and harmless articles of diet. He submitted himself to long periods in which his sole nourishment was restricted to bread and water, water and olive oil or meat, bread, bacon, and tea, or fine wheatmeal, melted butter, water and salt, etc. His experiments were primitive, but he noted the weather each day, the quantities and kinds of foods, quantities of excreta and urine, change of body-weight, state of general health, etc. Unfortunately he ended by ruining his health, and died at the early age of 29, on Feb. 23rd, 1770.







#### METACARPO-PHALANGEAL DISARTICULATION-(Continued)

FIG. 8—Bleeding is controlled by pressure clamp and ligature. The principal spurters are, of course, the digital arteries on either side of the bone. It is recommended that the nerves be isolated and injected with alcohol. The tendons are pulled down, cut short, and then allowed to retract. The skin flap is trimmed so as to fit neatly in the closure. It is almost invariably necessary to excise a small wedge of skin on the anterior surface, as shown. Some surgeons recommend that the soft tissues of the flaps be stitched together with plain catgut in order to eliminate dead space. The wound is then closed with interrupted non-absorbable sutures, without drainage.

#### AMPUTATION PROXIMAL TO THE METACARPAL HEAD

FIG. 9-When the finger is amputated without removing the metacarpal head, a considerable hiatus is left between the major digits. Therefore, it is sometimes desirable to remove the head of the bone along with the finger in order to obliterate this space. A much better cosmetic result is thus obtained, but at the same time the hand is weakened somewhat owing to the fact that it is necessary to divide the transverse ligaments that connect the metacarpal heads. This operation is, therefore, confined chiefly to women. The tourniquet is placed higher up on the arm and is removed before closure of the wound. The incision is similar to that described in the preceding operation (" Metacarpo-Phalangeal Disarticulation ") but the handle of the racquet begins about 2 inch proximal to the prominent point of the knuckle. Just before reaching this point, the oval portion of the incision is begun. The limbs of the oval incline distally and toward the palm and then pass around the anterior aspect of the finger at the edge of the wedge. The flaps are then dissected back. The transverse ligament uniting the metacarpal head with its neighbours is divided. The metacarpal head is exposed by drawing the adjoining fingers apart and a Gigli saw is passed around the neck of the bone to divide it. The wound is closed as shown in the preceding operation, but here it is important to draw the hand together and keep it bandaged rather tightly during the post-operative period in order to approximate the metacarpals.



FIG. 9.

# THE STORY OF WOUND TREATMENT

THE treatment of wounds was always well developed among primitive peoples. Applications of various kinds, both moist and dry, were used, and even plaster bandages were not unknown. Some tribes actually practised suture of wounds. Technique must have reached a considerable degree of perfection among early civilised races. In Egypt the different stages of healing were dealt with by different methods, and a division was made between clean and infected wounds. In the Talmud it was advised not to touch wounds because the hands cause inflammation. The first-aid treatment was by means of oil and warm water ; the subsequent dressing consisted



The Plaster. School of D. Teniers (1610–1690).

of wool and a mushroom preparation. Great stress was laid upon diet in the process of healing injuries. It was thought, for instance, that the eating of honey was liable to cause ulceration of a wound and the neglect of medical instructions regarding diet caused the patient to forego his claim for compensation for injuries sustained. Probably the learned doctor regarded it as beneath his dignity to treat wounds with his hands. This gave rise to a class of healers who were mostly amateurs in the army, and who represented the early medical corps.

Ulcers and wounds were treated by barbers and bath attendants, often belonging to the unlettered classes. But there were also educated and observant barber-surgeons, and from among these Ambrose Paré rose to be Councillor of State and surgeon to the French royal family. It was he who said of one of his first patients, wounded in a military expedition in 1536, "I dressed him, God cured him." Gunshot injuries were then treated with boiling oil in the belief that they were poisoned,

and it was Paré who introduced the use of a simple dressing, and found, after much trepidation, that the results were very favourable. He also



Dressing an Arm.

School of Adrian Ostade (1610-1685).

made use again of a longneglected procedure in amputations, the employment of ligatures for arteries. Although wound treatment was simplified in the sixteenth century there were still many peculiarities attaching to it. such as that of forbidding loveplay, even in cases of slight injury. Even so experienced a surgeon as Wilhelm Fabricius (1560-1634), who expected a wound doctor to have a good knowledge of anatomy and not merely practical skill, seemed disposed to believe in the efficacy of wound salves. These had

been recommended by Paracelsus, and the procedure was to anoint with the ointment the weapon that had caused the wound. Fabricius explained the failure of the salve in one famous case at Rüdesheim on the Rhine by saying that the method had been revealed to Paracelsus by the devil, and the patient was a lady of such singular piety that nothing devilish could have any effect on her. So much for Paracelsus' supposed reform of medieval medicine.

It was really through experience gained in military surgery that

the treatment of wounds advanced. In England separation between the barber-surgeons and wound-healers was effected in 1800. The reason why the latter had been looked on as so inferior was that they did not refrain from travelling about like tumblers and tightrope walkers, and practising their art at the local fairs.



Treating a Wound.

Sajtleven (1606-1601).

Only when wound healing and internal medicine were united in one faculty in France in 1792 was their status raised. In Vienna the wound-

214

healers seem to have enjoyed a certain reputation, otherwise they would not have been compared by a German chaplain to the divine healer himself. But he also knew of some exceptions, otherwise he would not have lectured them as he does in one of his works. He was acquainted not only with the laughing Vienna that was to produce Haydn and Mozart, but a city oppressed by the Turks and overrun with the plague.

He recognised Æsculapius as the founder of the treatment of broken bones, but considered that no one had treated wounds better

than Christ him-

to his divine powers.

When He was attacked in the garden by the Roman soldiers and rabble, Peter, to prove his loyalty and courage, struck off the ear of Malchus, But Christ, disregarding the fact that Malchus had been a worthless man, set his ear in place again, and, thanks

self.



The Foot Bandage.

D. Teniers (1610-1690).

it immediately healed, which even the best wound doctor could not have accomplished. The good Samaritan who treated the wayfarer's wounds with wine and oil seems to have been a wound-healer with a better sense of duty than some shepherds of souls. But there were also unskilful and conscienceless healers of wounds, who demanded exorbitant fees for a suture or any trifle. They praised up goose-fat and fowl-dung as Egyptian balsam, and reaped a fine harvest out of hops water and other worthless draughts. It was nothing for a healer who was treating a woman's eyes to relieve her, on the quiet, of a silver spoon or a pewter bowl at each visit, and at the end to be refused payment, because the patient saw much less than at the beginning of her treatment, the operator having helped himself so liberally to her There were many unskilful practitioners who made possessions. lesions worse, and used the knife as indiscriminately as a gardener his shears, thinking that the common people's limbs grew like crabs' legs.

Bandages were improved by Heister (1683-1758), and Mezler (1792) recommended compression bandages and elastic stockings for varicose ulcers. Plaster bandages were introduced by a Dutchman in 1852, and Bonnet introduced wire supports. In 1855 warm water baths were still being used for amputation wounds and it was not until the advent of Lister that the modern period in wound treatment really began.

in such a state is obviously in danger of decay, if not already in a state of dissolution. The tasks which will face the young people at the end of this century are likely to be terrific. They will not only have to pay for all the vast loans which will have accumulated by then, but they will have to support a large army of pensioners. Already the average age of the population is rising, for during the last fifteen years there has been a decline of about a million and a half in the child population of Britain.

#### Future Possibilities

The only thing that can prevent these unpleasant things happening is for fertility to increase—that is, women of reproductive age must have more children than they are having at present. Is it the concern of the State to increase fertility? The totalitarian states certainly think so, and their efforts have had considerable success. There would appear to be much in favour of starting family allowances, and perhaps marriage loans, in this country. But the roots of the problem go deeper still. The birth-rate began to fall when the knowledge of birth control first became available. The present low birth-rate in this and other countries must surely be due to a definite lack of desire to have children, or, at least, to have large families. It has been said, obviously with truth, that if children are not to be had for love, they are not likely to be had for money.

It may be that the war and the unsettled condition of the post-war world has stifled the natural desire of women to have children, and that if life became more settled and living conditions improved, the birthrate would rise again, just as it has risen during the last three or four years in Germany. Other causes of the decline may be the emancipation of women, and the present lack of deep religious feeling in the community. One authority thinks that there is a definite association between fertility and price levels—that the birth-rate depends on economic factors working via psychological routes. If an industrial boom were to come along, we might see an almost immediate rise in the birth-rate.

There is one theory which is extremely attractive from a philosophical point of view, but which does not greatly appeal to the statistical experts of the present day. This is the theory of "Germinal Vitality," first suggested by Brownlee. He believed that an evolutionary force influenced the birth-rate, and that, in fact, cyclical changes in fertility have occurred in waves, the peaks of which are reached every two hundred years. He produced evidence that the birth-rate was probably high round about the beginning of the 15th, 17th, and 19th centuries. These were all times of great endeavour and achievement. Let us hope that, after all, our children's children may be on the peak of the wave which is due at the beginning of the twenty-first century.

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# POISON CASES OF THE SEVENTEENTH CENTURY

214

The seventeenth century, following the Renaissance, had a prosaic air. It was characterised by the charm of the spendthrift Stuarts, the austerity of Cromwell, the poetry of Milton, and the gradual development of the parliamentary system and of good middle-class respectability. Similar phenomena appeared elsewhere. Thus in France, under Louis XIV, dramatists like Molière and Racine dissected the follies and passions of mankind and great orators like



Fortune-telling

17th Century

ners with the tortures of hell fire, and the great majority of people lived in a morbid fear of death. In their desire to escape damnation they resurrected some of the darker superstitions of the Middle Ages and sought to obtain the aid and protection of occult powers. Charlatans and impostors of all sorts appeared. During the Great Plague of London in 1665 an amazing crowd of sorcerers, magicians, and diviners sprang up in the panic-stricken city. They opened shops under the sign of Friar Bacon, of Merlin, or of Mother Shipton where they sold amulets against the pest, disinfectant waters, and advice as to where to take refuge to escape contagion.

Bossuet and Bourdaloue fulminated against the moral weaknesses of their time. Nevertheless, in spite of the culture and the grace of this age, one of the most terrible epidemics of criminal poisonings ever recorded broke out towards the middle of the century, and it needed the combined energies of the greatest intellects of France and the full weight of royal authority to eradicate the evil.

#### Religion and Chemistry

It was a period of religious fervour, unfortunately exaggerated in some respects. The Church and the reformers alike threatened sinThere was, however, a serious revival of interest in natural phenomena. The great learned societies were founded in England, France, and Italy, Galileo revised the conception of the universe, the microscope and the telescope were invented, and Harvey observed the circulation of the blood. Already, a century before, Paracelsus had given an impetus to the study of chemical compositions. The search for the philosopher's stone and the "universal elixir" also led to patient investigation of every conceivable kind of substance. The properties of known metallic compounds and of vegetable tinctures were slowly discovered and their effects on the animal organism noted by a rough system of trial and error. Unfortunately, physicians, who should have been interested, generally held themselves aloof from these experiments.

#### Weakness of Medicine

In medicine many forms of ill health represented insoluble problems and in default of reasonable explanations doctors were led to postulate unscientific causes. Nervous trouble, weakness, pallor, wasting, and consumption were only too often accounted for by the supposed influence of the evil eye or attributed to poison. Because of this, because drugs were handled and dispensed by charlatans and poorly trained apothecaries, and since physicians were unable to diagnose certain cases of sudden death, almost every case of unexpected death was attributed to poison.

When Henrietta of England, wife of the Duke of Orleans, died in 1670, almost everybody, her brother-in-law Louis XIV and her brother Charles II not excepted, believed she had been poisoned, although it is now thought that she died of peritonitis following perforation by a gastric ulcer. There were also people who suspected Charles II of having been poisoned and the later years of Louis XIV were saddened by the ebb and flow of suspicions at the deaths of his son and his son's wife and of various other members of the family. This veritable reign of mental terror had been fomented by the discovery of two terrible series of crimes committed between the years 1666 and 1679.

#### The Marquise de Brinvilliers

The Marquise de Brinvilliers, a lady of distinguished family, but of ill-regulated passions, was convicted of the murder by poisoning of her father and of her two brothers. She was also proved to have had similar intentions with regard to other members of her family. The motive appears to have been impatience at the moral sermons delivered by her father, a patriarch of the old school, and a covetous desire to enter into her inheritance. She was undoubtedly a person of charm and education, she moved in the highest circles and was universally admired. Passionately fond of pleasure and married to a man of like tastes, she was immersed in the gay life of town and Court.

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The dominant passion of her many love-affairs was for Sainte-Croix, a man as charming, as brilliant, and as unscrupulous as his mistress. Her father heard of this liaison and, using his influence at court to procure the arrest of his daughter's lover, signed his own death warrant. According to some accounts Sainte-Croix was the real instigator of

214



Marquise de Brinvilliers on her way to scaffold Le Brun

the poisoning, which lasted for eight months. During his detention at the Bastille he is said to have made the acquaintance of an Italian gentleman named Exili, who had been in the service of Christina of Sweden and was the supposed possessor of the secret of many famous Italian poisons. There is no absolute proof of this, but Madame de Brinvilliers and Sainte - Croix refer in their letters to a mysterious "Glaser's receipt."

In her confession, Madame de Brinvilliers stated she knew of three poisons, arsenic, vitriol, and toad's venom, the most violent of which was "rarefied arsenic." She was beheaded in

1676 but unfortunately inspired other poisoners.

#### The La Voisin Poisonings

One day a worthy but insignificant lawyer was invited to dinner by a ladies' tailor and his wife. During the meal an unguarded remark by a woman present, a self-styled "divineress," so alarmed the lawyer that he consulted a friend of his, an officer who had actually been instrumental in the arrest of Mme, de Brinvilliers. This officer sent the wife of one of his archers to consult the "divineress" with instructions to complain of her husband, and the wife returned with a phial of poison. This led to the arrest of the woman and a number of her associates, among whom was a certain Catherine Monvoisin, called La Voisin, the wife of a tradesman; she was a sorceress practising black magic, telling fortunes, furnishing simple drugs for common ailments, concocting love-philters and beauty preparations and acting as midwife and abortionist. A person of considerable intelligence, she succeeded in making immense sums of money by her ingenuity and stagecraft, for her clients were drawn from the wealthiest classes. La Voisin was interested in all branches of scientific activity and, strange as it may seem, lavishly subsidised more than one undertaking. Careful notes of her clients' physical and physiognomical peculiarities were kept,

and she was proved to have supplied poison to a large number of people.

Further arrests revealed the widespread nature of the evil. It was found that La Voisin knew an ex-officer named Louis de Vanens who had been charged with complicity in a plot to poison the King and the Dauphin two years before, and whose papers had revealed the existence of an association of alchemists with a medley of names of people

of all classes. Vanens had frequently visited La Voisin and had been on friendly terms with a wellknown beauty, Madame de Montespan. He was a fanatical student of the occult, the friend and collaborator of an extraordinary person, the satanic Chasteuil. in turn Knight of Malta, Carmelite prior,



and passionate play based on her career

alchemist. Another associate was a still more influential person, the Portuguese Count of Castelmelhor, an accomplished student of alchemy and metallurgy.

The La Voisin case was continued. The divineress was proved to have sold countless packets of poison and to have presided at black masses at which new-born babies had been massacred. Her guilt was greater than can possibly be imagined. She was burnt at the stake in 1679 and, as Mme. de Sevigné writes, "yielded up her soul very charmingly to the devil."

#### The King's Mistress Implicated

Louis XIV was horrified at the result of the investigations, which did not end with the death of La Voisin. Hundreds of well-known people, many of them were the close associates of the royal family, were incriminated in the affair. Madame de Montespan herself, who had never made a secret of her jealousy when rival ladies claimed the King's attention, groped for any means of allaying her pain. Vanens brought her to La Voisin. She ordered philters to win back

the King's affection, and, when they proved ineffectual, asked for stronger ones; then, tortured in mind and soul, she commissioned the reading of a black mass. These revelations touched the very depths of infamy and sacrilege and the King, in a final effort to protect his one-time mistress and to put a stop to the scandals, dissolved the Special Commission of Enquiry and confiscated a large part of the written depositions. To save his own royal dignity and to lessen the disgrace of the persons concerned he arrested the normal course of justice. But numerous prisoners were sequestered for life in various royal fortresses, and Madame de Montespan retired to a convent she herself had founded. The case was closed.

214



A Black Mass

But the Lieutenant of Police through whose hands the bulk of the inquiries had passed and who was an upright and progressive magistrate, maintained that material steps must be taken to prevent the repetition of such crimes. In consultation with Colbert he drew up a decree against sorcerers and poisoners. This edict came out in August, 1682, and forbade magic practices of all kinds, prohibiting the manufacture of and traffic in poisonous substances except such as could be proved to be necessary for the proper needs of industry and commerce. One by one the conditions which had largely favoured this series of poison murders were removed. A change came about in medical outlook, surgery was rehabilitated, the knowledge of pathology was increased, and progress in chemistry brought with it a more exact study of pharmacology. As the horizon was enlarged, reason advanced and men and women found themselves better protected against their own fears and credulities.

214

#### Post-operative Excitement.

One patient was really violent afterwards for about a quarter of an hour. He was a man who had had his sciatic nerve stretched. It was his second dose of avertin within eight days, and yet after the first dose (injection of sciatic nerve with normal saline) he was quite normal. After the injection of morphine he soon became quiet.

and hermonic second dis	Vomit once or twice.	Vomit more than twice.	No vomit at all.
Total cases 170 Cases where nitrous oxide and	45 (26·5%)	12 (7%)	113 (66·5%)
oxygen only was used . 100 Cases where ether was used as well in greater or lesser amount (i.e., upper abdo- minals, excluding gastro- stomies and appendicec-	17	6	77
tomies)	(28%)	2 (8%)	16 (64%)
	) mote net	Telesing 1930	
Total.	Vomit once or twice.	Vomit more than twice.	No vomit at all.
Breasts 20	6	2	12
Appendices	(30%)	(10%) I	(00%)
Hernias	I	I alter I have	19

\* Cholecystectomies, gastro-enterostomies, and gastrectomies, excluding gastrostomics. Of these, 6 were combined spinal percain and avertin. 3 were sick and 3 were not. (One died some hours later of collapse.)

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(28%)

23

25

Thyroids

Upper abdomen\*

6

14

16

(64%)

4

2

(8%)

These results tend to demonstrate that the addition of ether causes a rise in the incidence of vomiting. The presence of blood in the stomach after gastro-enterostomy is apt to precipitate sickness, but on comparing the results of gastro-enterostomy with those obtained with cholecystectomy it would appear that the presence of blood in the stomach as a cause of vomiting is negligible, as compared with the stimulation of the sympathetic by traction on and around the gallbladder, and by the fact that more ether is required to maintain relaxation under these circumstances. The figures are self-explanatory, and Evans suggests that the results show that avertin definitely decreases the amount of after-sickness. He finds that patients are now demanding this drug and are most enthusiastic about it. He has found no difficulty in using it as a routine in hospital, "thanks to the active coöperation of the nursing staff involved."

his letters-had he been travelling to-day instead of 1806 he would have bought a picture postcard, and his friends would no doubt

have missed much of the artist's meaning.

"" A girl of 16 years is lying in bed. The physician sits at the bedside, and the mother, a young and handsome woman still, is handing him daintily a glass of brandy wine. The girl looks so plump and innocent, as though she could not understand why she was ill. She is a bonny lass, with one plump arm lying by her side, the other round her head. Her mother is very serious, and her seriousness seems to have some effect on the doctor's ambiguous smile. The glass is welcome, but he must make a show of refusal-it's rather early



Hermitage, Petrograd. THE DOCTOR'S VISIT.

for a drink, but—well, to the patient's health ! In the open doorway one can see a couple of pet animals, introduced by Steen to demonstrate in pantomime what the doctor does not dare to mention in the presence of the mother," and so forth.

Other connoisseurs, Holländer for example, have also drawn attention to the amorous gambols of the little dogs as giving some

indication of the patient's complaint, and in addition to the picture in the background showing nymphs raped by centaurs, the little basket of glowing coals is not without significance. Over the coals lies a blue ribbon; the fumes of a smouldering ribbon held under the nose were regarded in Holland as a corrective to hysterical fainting fits-as burnt feathers were in England -and further the fumes had some reputation in amenorrhœa, when directed on the lower No doubt it is the abdomen. latter indication that Steen had in mind.



Pinakothek, Munich. PHYSICIAN AND PATIENT.

#### Conclusions.

I. Avertin is a great advance, and in proper dosage is quite safe.

2. The dosage recommended 0.08 c.c. per kg. body-weight, with preliminary morphine  $\frac{1}{6}$  gr., or 0.1 c.c. per kg. body-weight if no morphine used.

3. Nitrous oxide oxygen is necessary to complete the anæsthesia.

4. The likelihood of vomiting depends largely on the amount of ether used.

5. Vomiting is absent in most patients; its absence can almost be guaranteed if nitrous oxide oxygen only be used.

6. It is strongly recommended for the patient who has a history of being very sick after ordinary anæsthesia, and for the highly nervous individual.

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# JAN STEEN, THE PAINTER OF THE SICK ROOM.

THE Dutch painter Jan Steen (1626–1679) died at the comparatively early age of 53. It is not known from what disease he suffered, but a large proportion among his works of pictures of physicians and the sick chamber point to a familiarity with the doctor's visit in the home. There are at least 50 pictures by him

portraying doctors' visits to ailing women and girls.<sup>1</sup> This attraction of the sick room for Jan Steen was commented upon by the scientist Benzenberg in his letters describing a journey to Paris in 1806.

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In all these many portraits the physician appears as a shrewd student of human nature, whose knowledge of men and women is often—and rightly—greater than his medical lore. The artist occasionally emphasises this with a legend : "If I am not mistaken, your daughter is pregnant," but in the picture itself this diagnosis is merely hinted at delicately. The painting in the



Rijksmuseum, Amsterdam. THE SICK WOMAN.

Royal Gallery at The Hague (see plate facing p. 134) is an example, and it has been accurately and prettily described by Benzenberg in

<sup>1</sup> Dr. Erich Ebstein, Leipzig: Jan Steen, Der Maler des Krankenhauses, Therapeutische Berichte, 1931, No. 4.

In "The Physician" the patient has got out of bed and is sitting in a chair. The doctor stands before her and feels her pulse, but does not seem to take the condition over seriously, as a case of "mal d'amour." Over her shoulder glances the maid, with a smile of

mingled curiosity and amuse-"Will the learned ment : doctor discover what I know already?" Even the little dog on the cushion is taking an interest in the business. The old woman at the hearth is, wisely, occupying herself with what really matters-creature comforts. The statuette of Cupid on the mantlepiece is perhaps the keynote of the whole affair.

The other paintings which we reproduce here are in much the same satirical style. Steen, differing from Molière, does not direct his satire on the physician, but on the patient.



Royal Gallery, The Hague. THE PHYSICIAN.

## ADJUVANTS TO SALYRGAN DIURESIS WITH A NOTE ON SALYRGAN ADMINISTRATION

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The diuretic action of the complex mercurial salyrgan is increased by the administration of ammonium chloride and ammonium bromide. The technique of salyrgan injections is described.

CARDIAC disease accompanied by œdema is treated, at the Graf Apponyi Polyclinic, Budapest, almost exclusively with the mercury diuretics, in association with appropriate cardiac medication (digitalis, etc.). If diuresis begins to diminish, or is suppressed, after the administration of salyrgan<sup>1</sup> intramuscularly, it may be brought on again by the administration of ammonium chloride. Dr. Elisabeth Berger, at the clinic, has been carrying out tests on the action of ammonium chloride in this connexion, and further examined the effects of other substances as adjuvants to salyrgan diuresis. The results on the urine output are given in the following table, taken from the Wiener Klinische Wochenschrift (1930, No. 49); the original gives many other factors, such as the influence on the body-weight and the changes in the pH.

<sup>1</sup> Salyrgan (10% solution) is issued in ampoules of 1 c.c. and 2 c.c. in boxes of 5.

## TREATISE ON TEA

led me to believe that in the majority of cases of this kind a moderate amount of good black China tea, to replace the harmful tea previously used, might well have been prescribed in place of total abstention. I had also become convinced that in all such cases the use of China tea after recovery in place of the strong and coarse teas which were the original cause of the complaint would assure that there should be no return of the symptoms. Not being a qualified practitioner, however, I did not put forward this theory until it had been independently examined and tested by one of the leading dieteticians of the present day. His observations have confirmed my own, and these have since been re-confirmed by other medical men with large general practices. As I write I have a number of letters from doctors before me; and on this question all of them, without exception, have arrived at the same conclusion. It appears to be an unarguable one.

I am endeavouring to present my case without bias or prejudice, and I therefore do not attempt to suggest that if all the exaggerated tea-drinking of the present day had been confined to China tea no ill-effects would have resulted. No matter how beneficial a stimulant, or how wholesome a food, the over-use of any article of diet must be inherently bad. And it is impossible to deny that teadrinking in England has to-day reached proportions which are altogether excessive. Its cheapness compared with any other form of refreshment, its stimulating qualities, and the ease and quickness with which it can be prepared, have in this country at least combined to make it incomparably the most popular of any beverage known. Not only at meal times, but also between meals and even before rising in the morning and retiring at night, excessive doses of this strong tea have become more and more general. Its stimulating effects in particular have caused the habit to be confirmed regardless of consequence. In short, it is only too clear that tea-drinking has become a national habit bordering on an obsession, and under 2 Operation, 2 live Meetient

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214

content of good black China tea is invariably lower than that of any other variety.

As is well known, tannic acid forms with the proteids (albumin contents of the stomach) a leathery insoluble compound upon which the digestive ferments cannot easily act, and hence excessive tea-drinking becomes a primary cause of indigestion. The human system is capable, under favourable circumstances, of coping with a small amount of tannic acid without ill effects; but the cumulative effect of habitually exceeding this "small amount," to say nothing of the inveterate habit of large doses, is little less than disastrous.

Owing to its astringent action on the muscular coating of the intestines, tannic acid tends to arrest their normal gradual movements and so induces constipation. For the same reason this astringent effect is a common cause of gastritis, gastric ulcer, duodenal ulcer, intestinal stasis, and dyspepsia. But above all, the drinking of excessive amounts of tea is a cause of chronic constipation, which greatly adds to the danger of hæmorrhoids, appendicitis, and other complaints arising from intestinal obstructions.

Many medical authorities believe that tannic acid astringency may be a contributory cause of cancer of the stomach; but on this aspect of a most highly technical problem, on which the whole resources of medical science have been concentrated for many years, it would obviously be out of the question for me to express an opinion. I shall therefore do no more than point out that I am advised that it may be possible for a tendency towards cancer to remain latent in the system throughout the patient's lifetime provided that there is no constant irritation sufficient to bring it forward ; and that tannic acid, if taken into the system in excess quantities, does undoubtedly act as an exciting cause of many complaints. I repeat that in this connection I make no attempt to express any opinion, or to suggest any theory ; but while there still exists even a possibility of tannic acid irritation

modern conditions it is doubtful whether this obsession can ever be eradicated.

Faced with this situation—that excessive tea-drinking is definitely harmful, and that it has become a habit which shows signs of increasing rather than diminishing—the physician finds himself in a difficult position. What course is he to follow ?

From all the investigations which have been made as to the effect of tea on the human system, one fact alone emerges which appears to point a way to the solution of the problem.

It has now been definitely established by independent scientific experimenters that China tea, even when used in excess, is much less harmful in its effects than the stronger and coarser growths produced in other countries. It has also been definitely established that a good quality black China tea, if not used in excessive quantities, is an entirely innocent beverage which does not inhibit digestion. This vital fact has been confirmed by all dietetic physicians who have studied the question of tea, and (as I understand) is now accepted by the medical profession generally as being beyond question.

The reason for the difference between the action of China and other teas is not far to seek, and may be disclosed immediately by chemical analysis. A typical experiment recently carried out by a leading dietician—an experiment which may be repeated and confirmed by any competent analyst—showed that of sundry samples of tea examined the best samples of other growths contained approximately 80 per cent. more tannic acid than did the best samples of the China teas. Over a large number of similar experiments, the same analyst has demonstrated that whereas the tannic acid content of good black China tea is practically constant, that of other growths varies over a very wide margin. And although in this respect some teas have been shown to be much better than others, the whole of his experiments have gone to prove that the tannic acid and cancer being in any way associated, I feel that my present attempt to lay stress on the inherent dangers of excessive tea-drinking must surely be justified.

As I have already tried to show, however, the difficulties encountered by the physician in endeavouring to induce his patients to discontinue or even to moderate their consumption of tea may often prove to be almost insurmountable. I have a vivid recollection of my Fatherhimself a medical man-asking a contemporary whether "he would not be better without so much whisky." To this question his friend evasively replied : " I do not want to be better without so much whisky," and tea-drinkers to-day are only too inclined to adopt the same attitude. The only practicable alternative to the present state of affairs would therefore seem to lie in a more general appreciation of the comparative harmlessness of China teas as compared with those from other countries, and a more general adoption of China teas in place of the stronger and coarser growths now so generally popular.

Genuine controversy as to the merit of China tea still exists, but it is difficult to see how a hostile critic can hope to maintain his position in the face of such conclusive medical and scientific testimony as is now available. It is a proven fact that it is the tannic acid content of tea that is inimical to health ; it is no less a proven fact that the tannic acid content of black China tea is less than that of other growths. And therefore whatever may be the side-issues involved in the controversy, it is impossible to avoid the conclusion that China tea may safely be used in a vast number of cases in which the use of other teas would be highly undesirable.

It may be interesting to the medical man who has had little opportunity of studying the question to know what are in fact the essential differences between China and other teas, and more especially as this is a highly technical matter of which only a very small minority of tea experts have any accurate knowledge.

#### A TREATISE ON TEA

Although in this work I have laid particular stress on the innocuous character of China tea as such, and particularly on the innocuous character of really good black China tea, I have made no attempt to differentiate between one brand and another. So long as none but the recognised most healthful tea is used, a medical man may not think it necessary to specify any particular brand. On the other hand, it is a very real advantage to the patient if the tea which he uses is not only the most suitable in every way, but is also one which is easily obtainable, moderate in price, and of a rigidly-maintained standard of quality. I feel, therefore, that in spite of my personal connection with "The Doctor's China Tea" it is not only permissible but advisable that I should specify some few of its admittedly good points, provided that I limit them to such as can be readily submitted to proof. The practitioner naturally wishes to feel fully satisfied that he is recommending a brand which will be in the best interests of his patients, and in many cases he is unwilling to leave it to the patient himself to select a tea which may after all prove to be an unsuitable one.

Many hundreds of medical men have to my personal knowledge prescribed this particular tea in cases of nervous and digestive disorder, and the records of my company conclusively prove that still larger numbers of practitioners, unknown to us personally, must be following the same course. Every day, I receive letters from members of the profession expressing their confidence in the brand, and instancing cases in which its use has been found invaluable in assisting even if indirectly towards a successful recovery. These opinions are confirmed and re-confirmed by experienced nurses who have had special opportunities of forming an accurate judgment, and further by letters from people in all conditions of life who have found that to their intense relief they can use this special brand without any evil effects. Taken collectively, this united testimony of its reliability

19

#### A TREATISE ON TEA

20

should be conclusive, especially as the confidence of the medical and nursing professions has been gained by actual personal experience, and by observation under circumstances admitting of no deception.

Its being harmless because of its low content of tannic acid may be proved by chemical analysis. Its highly refreshing but not too stimulating qualities give that ready relief that tea drinkers desire, without any accompaniment of over-exhilaration. Its standard of quality-based on an unvarying formula—is uniform from month to month and from year to year. Its peculiarly attractive flavour is such that even those persons who normally dislike China teas in general find "The Doctor's China Tea" immediately palatable. It can be secured readily in any but the most out-of-the-way village; and where there is any difficulty in obtaining supplies the proprietors remove the inconvenience by forwarding small quantities free of postage. Special order-forms are used to accompany samples sent on medical advice, and the recipients of these are accorded preferential dispatch.

This treatise, however, has not been written with the object of stressing the value of one brand of tea as opposed to other brands, provided that these are of similar quality and blended with the same scientific accuracy. Rather have I endeavoured to put forward the view that the "Black China Tea" first recommended by the late Sir Andrew Clarke, M.D., in 1891, and thereafter by the ever-increasing numbers of dieteticians to whom the present prevalence of digestive disorders has become a problem of the gravest concern, is the only form of the beverage which persons showing the slightest tendency towards digestive disorders should be allowed to consume.

I am an enthusiast for my subject, but I have tried to make no statement and to suggest no theory which cannot be conclusively demonstrated by actual trial. On this vitally important matter, there can be no room for slipshod reasoning and haphazard conjecture. I shall

# A TREATISE ON TEA

welcome any correspondence which doctors or nurses--or indeed anyone who is genuinely interested in the subject --may care to address to me, and if I can feel that this little work of mine has stimulated their interest in tea, and encouraged them to further inquiry, the time which I have spent on its composition will have been amply rewarded.

To those who are sufficiently interested in the subject of tea to inquire a little further into its history, it may perhaps be useful briefly to trace this world-wide development of the public taste from its original humble beginnings.

It is not actually known by whom the virtues of tea were first discovered, and the vast masses of unstudied literature lying in Chinese libraries have never been sufficiently sifted for them to reveal any authentic information. Legend attributes the brewing of the first cup of tea to the Emperor Chinning (or Shen-nung), who so far as can be ascertained died in the year 2737 B.C. But as legend also attributes practically all agricultural and medical knowledge to the same source, it may be doubted whether the Emperor be really entitled to this additional honour. Another tradition, and an even less likely one, attributes the discovery of tea to a wandering Indian ascetic of the name of Bodidharma, who travelled to China as a missionary and vowed that he would spend nine unsleeping years in contemplation of the virtues of Buddha. After three years, however, he discovered a marked tendency towards drowsiness; and enraged by his weakness, he cut off his eyelids and cast them on the ground. But even this treatment failed, and after a further five years he was again on the point of sleeping when he plucked some leaves from a nearby shrub and obtained from them such stimulation as enabled him to complete his vigil. Bodidharma lived in the sixth century B.C., but his claims to be the discoverer of tea are weakened by

21

a reference—though admittedly a doubtful one—to teadrinking in a book of poems edited by Confucius in 550 B.C. or earlier.

It is not until nearly a thousand years later that our evidence becomes in any way reliable. It is quite certain that tea was used as a beverage in China in the sixth century A.D., and in the year 793 its use had become so common that a tax was put on its consumption by the Emperor Tih Tsung. It is thereafter freely referred-to in historical narrative.

The first European writer to mention tea was Giovanni Botero, an Italian author, who in 1590 referred to "A herb out of which the Chinese press a delicate juice which serves them for wine, it also preserving their health and freeing them from all the evils which the immoderate use of wine produces among us." But it was not until more than a hundred years later that the early Dutch settlers in Bantam began to drink tea with the Chinese, and as a consequence introduced it to Europe. Probably the first Englishman to refer to tea was a Mr. Wickham, an agent for the East India Company at Firando, Japan, who wrote on June 27th, 1615, to a friend at Macoa asking for "a pot of the best sort of chaw." That the request was granted seems proved by a subsequent entry in Mr. Wickham's accounts—" Three silver porringers to drink chaw in."

The English did not begin to drink tea until the middle of the seventeenth century, when prices ranged from  $f_{.0}^{.0}$ to  $f_{.10}$  per lb. That tea was still something of a novelty as late as 1660 is proved by an entry in Samuel Pepys' Diary on September 25th of that year : "I did send for a cup of tee, a China drink of which I had never drunk before." In 1664 Charles II became the first King of England to drink tea, and was presented with 2 lb. 2 oz. of "Thea" by the East India Company.

It was the East India Company who made the first really commercial importation of China tea in 1667, and in 1678 the market was actually glutted for some years by

# HENRY GRAY, F.R.S.

214

#### 1827 - 1861

#### By George Edwards

Being the second part of a paper read to the Hunterian Society on 14th January, 1958

TENRY GRAY died young, unmarried, and L little is known of his family or of his early life and connections. The son of a private messenger to George IV and William IV, he was born in 1827, probably in London. He enrolled as a student in the Kinnerton Street School on May 6th, 1845, aged 18. At that time it is said that the lectureship in Anatomy was held by Henry Charles Johnson, who gave his name to the School Anatomy Prize. In 1848, now twenty-one, Gray was awarded the Triennial Prize of the Royal College of Surgeons for a paper on "The Origin, Connections and Distribution of the Nerves of the Human Eye and its Appendages, illustrated by Comparative Dissections of the Eye in the other Vertebrate Animals." Two years later, in 1850, Gray, presumably now qualified, held the house-surgeoncy for the then usual twelve months. Two more years and, at the age of 25,



Rephotographed by Miss Underhill

he was elected to the Fellowship of the Royal Society. In 1853 he won the Astley Cooper Prize of three hundred guineas for a dissertation on the Structure and Use of the Spleen. (This Prize was open triennially to the whole world with the exception of students from Guy's Hospital). In this same year of 1853 Gray was appointed Lecturer in Anatomy in the School, a post which he combined with that of Surgical Curator of the Pathological Museum. He devoted his time to the preparation of his "Anatomy, Descriptive and Surgical," the great work with which medical students are all familiar.

The tome was published in 1858, one hundred years ago. It was received with varying views, *The Lancet* was enthusiastic, whilst *The Medical Times* indulged in a slashing criticism. As the years have rolled on the views of *The Lancet* have become the more general; in fact, they have become universal. The thirtieth edition appeared in 1949. It was not that there were not plenty of admirable Anatomies, both before and since; there were many. The merit of Gray's book is that the work is arranged, the illustrations were chosen and the text written in such a way as to make the

87

student's path clear before him. In the preface to the first edition Gray freely acknowledges the excellence of Dr. Vandyke Carter's drawings of the dissections which Gray had made. He also thanks Timothy Holmes for his help in seeing the work through the press.

In 1861 there were two vacancies on the surgical staff of the Hospital. Gray was a candidate and his appointment seemed to be most probable—but before the election Gray was dead of confluent smallpox caught from a nephew whom he nursed. Although his Anatomy has great virtues and although it has lived for a century in increasing esteem, we cannot but feel that had he lived, Gray would have been more than a one-book man and that much was lost to surgery in general and to St. George's in particular by his untimely decease.



MR. M. F. NICHOLLS Head recently modelled in bronze by Professor S. D. Elek. Reproduced with their kind permission.

88

You can put all your "student's aids" back on the shelf; Take a rest you have earned, pack a bag and depart For the depth of the country—alone, by yourself, And

Park Davey, &c.

And when you return to your rooms, or your flat; Tired with your journey, and longing for friends, You will find them in rows, lying about on the mat. Park Davey, &c.

ark Davey, dc.

When you make your mistakes, and of doubts have your fill; And no one believes you—not even yourself; They turn up with the postman and trust in you still. Park Davey, &c.

If you're stuck on an outpost in a country afar, And your family forgets you, believing you dead, Who is it remembers each mail where you are ?

Park Davey, &c.

So wherever it is we may happen to be— In country or city, on land or at sea, Let us toast them in samples so frequent and Free ! Park Davey, Allen Hanbury, Boro Wellcome, Johnny Bell, Billy Bovril, and old Uncle Eno and all. And old Uncle Eno and all.

J.H.S. (1926)

11

Extract from student's notes-

... "the patient is toxic and slightly pregnant" ...

191145

## JOHN SNOW

1813-1858

214

#### BY GEORGE EDWARDS

#### Being the third and last part of a paper read to the Hunterian Society on 14th January, 1958

OHN SNOW was a farmer's eldest son born at York in 1813. He was educated at a local school until he was fourteen and was then apprenticed to a Newcastle surgeon, a Mr. Hardwick. Snow's name appears among those of the first batch of students registered in the newly-formed Medical School of Newcastle. The chief incident of this apprenticeship was the cholera epidemic of 1831-32. During this outbreak Snow acted as physician-in-charge at the badly affected Killingworth Colliery and it was on this occasion, no doubt, that his mind turned to the problem of cholera control to which he was later to contribute so much in the way of answer. In 1833 Snow spent.a year with Mr. Weston of Burnop Field ; he was next assistant to Mr. Warburton of Pateley Bridge in Yorkshire.



In 1836 Snow left York for London, walking through North and South Wales, and staying with an uncle in Bath enroute. In October of this 1836 he enrolled himself at the Windmill Street School of Medicine, the famous school founded by William Hunter to which came the great younger brother John. A year later Snow walked the wards of the Westminster Hospital, in the old building which some of us happily recall, across the road from the West Door of the Abbey. In 1838 Snow became a member of the College of Surgeons, but before he could become appointed to a post for which he applied at his own Hospital, he had to 'pass Apothecaries Hall' as the expression then was and as the regulations then demanded. By the time this had been done Snow found that someone else had slipped into the post. He therefore departed and started in private practice at 54 Frith Street, Soho. This was a meagre and thin time, but Snow joined the clinical staff of the Charing Cross Hospital and continued his academic studies, taking the London M.B. in 1843 and his M.D. a year later. In the meantime he also made notable contributions to the medical press on a wide range of subjects—on asphyxia, on paracentesis of the thorax, on the removal

of adherent placenta, and so on. This meant that on the introduction of anaesthetics in 1846 his was a mind trained and receptive, ready to deal with the manifold problems of technique which inevitably appeared. Benjamin Richardson, the great public health authority and Snow's friend and immediate biographer, recounts how at the end of 1846 Snow met a well-known Oxford St. druggist who was bustling along with a large and cumbersome ether apparatus. Snow decided that some of this growing practice of administering anaesthetics might as well come his way. He soon found that there were many improvements to be made both in the method and the apparatus then available. He devised an improved inhaler and asked for permission to try it out in the Dental Department at St. George's. The results were so successful that he was soon asked to use it for in-patients' surgery. Here is something of which St. George's may well be proud—that it so rapidly appreciated the value of this strange innovation of anaesthesia that by the 14th January, 1847, it had arranged for an anaesthetist to attend in its theatre, less than three months, be it noted, from the original demonstration in Boston. Snow thus became the first anaesthetist to this, or as far as one can find out, to any other Hospital. He was shortly afterwards also invited to anaesthetise at University College Hospital where he worked with Liston during the last year of that great surgeon's life. He also anaesthetised for Sir William Fergusson, the distinguished surgeon of King's College Hospital, then situated in the Aldwych.

By September, 1847, Snow had written his book on 'The Inhalation of the Vapour of Ether in Surgical Operations' and on the title-page he recorded that his observa tions were based on eighty-six operations in which ether was employed at St. George's and University College Hospitals. In this book was given the classification of the stages of ether anaesthesia—a classification which stood the test of time for over eighty years and which was still taught in my student days. Snow also illustrated in his book the new portable ether inhaler which he had devised. At the centenary celebrations in 1946 Snow's inhaler was reproduced according to his original description : it turned out to work quite satisfactorily.

In 1847 chloroform was introduced by Simpson and Snow took to using it. He freely admitted that it was more dangerous than ether but contended that it was so much more effective and convenient that its use was justified. Snow devised an inhaler for this new agent. The cylinder from which the chloroform was vapourised is made of what we call blotting-paper but which was known to the mid-Victorians as 'bibulous' paper.

Snow rapidly became the leading anaesthetist in London, but this did not prevent him from much deliberate research into the effects of ether, chloroform and other drugs. In fact some of his animal experiments have only begun to be appraised and followed up in the last twenty years. We have only to observe that he seriously considered the problems of intubation and of maintaining oxygenation in a completely paralysed animal to realise how far ahead his mind had ranged. In 1853 his pre-eminence was made obvious to the non-medical world; for he was called upon to give chloroform to Queen Victoria during one of her later confinements, a service he again performed in 1856.

Snow's increasingly busy practice both as physician and anaesthetist and his private researches, would have seemed enough to have fully occupied one man's time. But, no! Snow was meanwhile conducting a great and quite invaluable research into the sources of cholera epidemics. Whenever he heard of an outbreak or even of a single case he visited the locality and noted the local conditions, particularly as to water-supply and drainage. It happened that two different companies with different sources served various parts of South London. Snow was able to show that if your house or street was supplied by Company A with the dirtier water your risks of getting cholera were about fourteen times as great as if you obtained your water from Company B. He published this view in a pamphlet but his great hour came in 1854 when there was a devastating outbreak round about Golden Square just on the other side of Regent Street from Snow's house and in the Soho district where he had lived and worked for so long. The workhouse, which had its own artesian well, was immune. So was the brewery, whose workers scorned to drink anything so mild as water. More than this, there was the case of the particular lady of Hampstead, who thought that the water from the Broad Street pump had a merit all of its own ; she had a small barrel of this fluid sent up every day, with dire consequences for herself and her family. When the epidemic was at its height (in point of fact, it had just begun to decline and was about to limit itself as outbreaks do) the vestry of St. James', then the local authority, was at its wits' end. An emergency meeting was held and to this meeting a gentleman asked to be admitted. It was John Snow and he earnestly requested the Vestry to padlock the handle of the Broad Street pump. The Vestry was was ready to try anything : the pump was padlocked and the epidemic was over. Snow developed his ideas as to the water-borne nature of cholera (all this before the science of bacteriology had even been conceived) and published them in his famous volume of 1856, which was recently reproduced in America as a classic. He continued his researches into anaesthesia and anaesthetics and in June, 1858, was actually penning the last paragraph of his magnum opus, ' On Chloroform and Other Anaesthetics 'when he had the seizure which was to prove fatal in a few days' time. This was the end at the early age of forty-five of a man whose fame in the world of anaesthesia and in the world of public health has only grown the brighter as one hundred years have passed.

Mr. Ch\*rl\*s to students, during hysterectomy-

"What do you think the condition of this patient is?" Dr. J\*hns\*n, looking up from *Times*—

" Precarious !"

14

JAN, 22, 1927]

214

#### Obituary.

#### SIR ISAMBARD OWEN, M.D., F.R.C.P.,

Lately Vice-Chancellor of the University of Bristol.

WE regret to have to record the sudden death, in Paris on January 14th, of Sir Isambard Owen, who, during his residence in London, was an earnest worker for the British Medical Association.

Isambard Owen was the son of Mr. William George-Owen, who became chief engineer of the Great Western Railway. He had been associated with Mr. Isambard Brunel in the construction of that railway, and when in 1850 his son was born was residing at Chepstow. His father afterwards removed to Gloucester, and Isambard Owen was sent to the King's School there and later to Rossall. He went up to Cambridge (Downing College) at the age of 18. Later on his old College made him an Honorary

Fellow. Having resolved to take to medicine he entered the Medical School of St. George's Hospital, with which he remained connected until he left London. He was elected assistant physician and afterwards physician. He was dean for five years, and from 1899 lecturer on medicine until his appointment to be Principal of Armstrong College, Newcastleon-Tyne, in 1904. He had graduated M.B.Camb. in 1876 and proceeded M.D. in 1802; in 1885 he was elected Fellow of the Royal College of Physicians of London.

Prior to his appointment at Newcastle Owen had shown a lively interest in higher education and had taken an active share in the discussions for the reconstitution of the University of London. Earlier than this he had been largely instrumental in the establishment of the University of Wales. While still a young man he had become a member of the great London Welsh Society of Cymmrodorion, and in 1879 became a member of its council; there then existed University Colleges at Aberystwyth, Bangor, and Cardiff, all in receipt of Government grants.

Attention was first directed to intermediate education, and the Welsh Intermediate Education Act was passed in 1889. In 1887 Owen organized a public conference which passed resolutions disclosing a strong feeling in favour of the establishment of a national Welsh University, and it was at that early date recognized that women should be afforded the same facilities as men. In March, 1888, after a further conference of an academic character, held at Shrewsbury in January, a series of resolutions were laid before a meeting of Welsh peers and members of Parliament. In 1891 Isambard Owen was one of the representatives of Cardiff at a University Conference appointed by the University Colleges of Aberystwyth, Bangor, and Cardiff, and the Conference of Joint Education Committees. The difficult task of this conference was to frame a scheme which would commend itself to all these colleges, lay and academic elements alike, and to the rising intermediate education authorities, as well as to the religious bodies, the local authorities, and the general public of Wales. Something approaching unanimity was required to give any hope of success in getting a scheme passed into law. A draft scheme prepared by Isambard Owen and Principal Viriamu Jones was submitted to the conference, which laid down certain broad principles and provided for the appointment of a draft

charter committee to prepare a scheme in detail. Of this committee, which began its meetings in April, 1892, Isambard Owen was an active member, and to him was entrusted the delicate and arduous duty of drafting a definite scheme. The University conference reassembled in January, 1823, adopted the scheme, remitted it to the county councils, the colleges, and the Intermediate Education Conference, and commended it to the public. For six months it was actively debated, but ultimately was found to have gained general assent. Both during and after this time an immense amount of work had to be done in defending the scheme and converting it into charter form; but Isambard Owen proved equal to all calls upon his time and energies, and the charter was approved by Parliament and passed under the Great Seal. Isambard Owen was appointed one of the Crown Members of the University Court, and when it met in April, 1894, he consented to act as honorory secretary till the statutes were completed and a registrar could

be appointed. In January, 1895, Lord Aberdare was elected Chancellor, Principal Viriamu Jones entered office as first Vice-Chancellor, and Isambard Owen was elected Senior Deputy Chancellor. The Chancellor's place, when absent, is, in the University of Wales, taken by one of two deputy chancellors. The Vice-Chancellor is the academic head of the University, but not the chancellor's deputy unless specially elected as such. The vice-chancellorship can only be filled by the principal of a college. As originally contemplated, the duties of a deputy chancellor would have been limited to occasional presidency of the University Court or its committees, or of a congregation of the University, in the absence of a resident chancellor. The death of Lord Aberdare a few weeks later and the subsequent election of the then Prince of Wales (afterwards King Edward VII) to the chancellorship made the senior deputy virtually the acting head of the University in all but purely academic matters, and his office became an arduous and responsible one. He discharged all its duties with

Photograph Byl

[Lafayette, Manchester. SIR ISAMBARD OWEN.

> his accustomed grace and assiduity, and when he became officially connected with other universities he retained his connexion with Wales as a member of the council of University College, Cardiff, and a governor of University College, Aberystwyth. The honour of knighthood which he received in 1962 was a recognition of the work he had done for Wales in promoting the establishment of the national University

> national University. Isambard Owen's chief contribution to the long-drawnout discussions on the reconstitution of the University of London was a scheme for a University of Westminster, drafted in consultation with Sir James Fowler in 1897. It proposed to leave the existing University of London alone, and would have given to the medical schools all that they had asked for, and especially the possibility of their students obtaining a degree in medicine or surgery on terms of equality with students of other universities. It was, we are told, the twenty-first scheme which had been put forward. It differed from its predecessors by placing the chief power in the hands of a council of the faculty, the institutions represented therein being left to organize themselves, instead of entrusting this duty to a commission in the composition of which they had had no voice. A general committee was formed, containing 140 persons attached to one or other of the London medical schools,

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and for a time the prospect of the scheme seemed good, but the London University Commission Bill was passed soon after the Westminster scheme was published in the BRITISH MEDICAL JOURNAL of December 25th, 1897 (pp. 1869-71), and it consequently went into abeyance and was never, so far as we are aware, revived. Owen loyally accepted the recommendations of the Royal Commission, and was vice-dean from 1901 to 1904 during Sir James Fowler's tenure of office as dean of the Faculty of Medicine of the University of London.

In 1904 he gave up his work in London to become Principal of the Armstrong College at Newcastle-on-Tyne. Sir ROBERT BOLAM has been good enough to send us the

following note: Sir Isambard Owen's work in Newcastle-on-Tyne covered a brief period of five years. He followed Principal Gurney, and saw the finish of the construction and the official opening of the fine west front of Armstrong College. Probably through

of the fine west front of Armstrong College. Probably through his personal influence King Edward and Queen Alexandra combined this function at the college with the opening of the New Royal Victoria Infirmary. Owen's great achievement in the Northern University, however, was undoubtedly the passing of the University of Durham Act in 1908. Before the successful issue of his diplomatic effort the place of Armstrong College in the University scheme was relatively subordinate. By the new Act Newcastle, with its College of Medicine and Armstrong College; became equally with the colleges at Durham represented in the administrative mechanism of the University The course of the negotiations themselves and the final achievement were remarkable tributes to Owen's genius for organization.

In 1909 he was appointed Vice-Chancellor of the newly constituted University of Bristol. The University had been formed by the combination of three institutions—a university college, a technical college, and the old-established medical school. Of the value of his work for the University Professor J. A. NIXON of Bristol has been good enough to send the following estimate:

Sir Isambard Owen came to Bristol as Vice-Chancellor of the University in its opening years. His mark had already been made in the academic field by his administration of the Armstrong College in Newcastle-on-Tyne and his strong hand in the University of Wales. He found several difficult situations to negotiate in those early years. They were not of his making, and he faced them with a striking detachment, which proved of the utmost value when the troubles had been overcome. It was a great factor in producing an atmosphere of concord that the Vice-Chancellor, the principal officer of the University, had played no part in the transactions which led for a time to serious discord. His neutrality and impartiality strengthened his position for the future.

The young University owed a great deal to his knowledge of university affairs. He was in touch with the other universities of the kingdom, and in conference and congress it was no small asset that the spokesman for the newest university should be already known and capable of commanding attention. In his handling of Government departments there was something of a "wizardry" that may have been, like that of a recent Premier, his birthright-for Sir Isambard Owen was in some of his gifts unmistakably Welsh. It showed in his deep, melodious voice, in his power of oratory, which, though restrained, could alternate quickly between deep emotion and light humour. His education at Cambridge, and his professional life in London as a physician at St. George's, had bred in him a wide sympathy with the humanities as the basis of university education. Thus, in spite of the overpowering attractions of science to the undergraduate of a modern university, Owen strove vigorously and successfully for a place in the sun for the Faculty of Arts and polite learning in general. There was a good deal of the artist in him; pictures and music appealed warmly to him. With medical affairs he concerned himself scarcely at all. It seemed as though he felt that his retirement from the practice of medicine had deprived him of all claim to advise on matters medical in his own university, though he sat on the General Medical Council as its representative from 1910 until 1925. Many of his colleagues knew him as Worshipful Master of the St. Vincent Lodge of Freemasons in the Province of Bristol. He was an ardent Freemason, and in the chair of his Lodge he won lasting affection and widespread admiration; he attained to high honours in the Province in recognition of his labours and his talents. Although at times in his later years he seemed

frail and weary, and even ill, he never appeared old. He had a very young heart in him, so that when news came that he had died suddenly in Paris, at the age of 76, the realization of the full tale of his years could scarcely overcome the feeling that the end had come unexpectedly young.

The British Medical Association had from its first institution desired to contribute to the advancement of medicine, especially on its clinical side, and suggestions had been made from time to time that it should enlist the interests of its many members in the collection of clinical and epidemiological information. When, therefore, in his address as President of the Annual Meeting at Cambridge in 1880, Professor (afterwards Sir) George Murray Humphry dwelt on the undeveloped capacities for good collective work which the Association possessed, described the advantages which might be expected to accrue from the successful utilization of those capacities, and made a definite suggestion, it was at once accepted, and on the motion of the then Chairman of the Committee of Council, seconded by Mr. (afterwards Lord) Lister, a committee was appointed to consider how it might best be carried into effect; on its recommendation a Collective Investigation Committee was appointed at the next Annual Meeting (Ryde, 1881). The plan had a very good send off, for it was warmly supported at a meeting of the Metropolitan Counties Branch in the autumn of 1880 by Sir William Gull and Sir James Paget. Its first secretary was Dr. Mahomed of Guy's Hospital; after a couple of years he was succeeded by Dr. (now Sir) Wilmot Herringham, and he by Sir Isambard Owen. The committee worked very energetically and issued a large number of inquiry forms. Reports founded on these returns were prepared, one by Sir George Humphry on centenarians, another on chorea by Sir Stephen Mackenzie, and yet another by Sir Henry Butlin on cancer of the breast. Isambard Owen's own contribution was on the connexion of disease with habits of intemperance; it was published in this JOURNAL in June, 1888, and reprinted in the Collective Investigation Record which the committee had instituted. His conclusions were that habitual indulgence in alcoholic liquors beyond the most moderate amount had a distinct tendency to shorten life, and that of men who had passed the age of 25 the strictly temperate, on the average, lived at least ten years longer than those who decidedly intemperate. Another conclusion was become that alcoholic excess or the gout which it induced probably plays a special part in the etiology of chronic The report expressed regret that the renal disease. returns to the inquiry were not far more numerous than they actually were, and it has to be confessed that the scheme generally did not fulfil the high hopes which had attended its birth.

Isambard Owen was an active member of the Association while he continued to reside in London. He was one of the honorary secretaries of the Metropolitan Counties Branch from 1892 to 1897, and its representative on the Central Council from 1896 to 1899. He was one of the honorary local secretaries of the London meeting in 1895. He was a member of the Parliamentary Bills Committee from 1894 to 1897, and of the Medical Charities Committee from 1899 to 1902. He had been secretary of the Section of Medicine at the Annual Meeting in Birmingham in 1890, was vice-president of that Section at the Annual Meeting at Nottingham in 1892, and its president at the Annual Meeting at Swansea in 1903.

Isambard Owen was a good friend and a charming companion. Slim and rather frail in appearance, he was capable of withstanding fatigue, whether physical, in his favourite pastime of cycling, or mental, when completing under pressure some of the laborious inquiries he undertook. He formed opinions only after full examination, but then held them tenaciously. His manner was always conciliatory, but opponents of a different temperament were often surprised how trenchant could be his criticisms, uttered in a quiet tone and often illuminated by a flash of humour.

Sir Isambard Owen married in 1905, and is survived by Lady Owen and two daughters, to whom, on behalf of the Association and the profession at large, we desire to offer our sympathy.

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LIST 6—FEBRUARY, 1920.

# F. R. MEATYARD,

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### PRESENTS A NEW CATALOGUE OF

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	EVERY ENGRAVING	GUARANTEED GENUIN	<b>E.</b>		
The following abbreviations are used in this list:					
H.LHalf length.	T.Q.LThree-quarter length.	N.W.LNearly whole length.	W.LWhole length.		
Del.—Delineator.	ScSculpsit (engraver).	Pubd.—Published.	Mezzo.—Mezzotint.		
STATESThe measurements	are given in inches, upright mea	surement first, and are inclusive of	inscription space and margins.		

- I Abbot (George), 1562-1633. D.D., Archbishop of Canterbury. Line, H.L., in cap and rochet. Oval, with ornaments. Brilliant Impression, with large margins.  $13\frac{3}{4}$  by  $8\frac{1}{2}$ . J. Houbraken, Sc. 125 6d
- **2** Agar-Ellis (Lady Georgiana), 1804-1860. Daughter of George, Sixth Earl of Carlisle; Wife of George J. W. Agar-Ellis, Baron Dover, who died in 1833. Mezzo., full H.L., in feathered hat, short curls, low-necked dress, ermine collar. *Very rare etched letterproof.* Pubd. 1824, the plate measuring  $9\frac{1}{8}$  by 7. Earlier than Whitman's State I., with an autograph letter in reference to this print from Alfred Whitman to the ence to this print from Alfred Whitman to the late E. Layton, Esq., from whose collection the print now comes. In old English carved Hogarth frame. J. Jackson—S. W. Reynolds.  $\pounds 775$
- 3 Anne (of Denmark), 1574-1619. Queen of James 1st. Line, H.L., in low-neck dress, with ruff, wearing pearls. Oval, with ornaments. Bril-liant Impression, with large margins. 14 by 8<sup>3</sup>/<sub>4</sub>. C. Jansen—J. Houbraken. 12s 6d
- 4 Arbuthnot (Masters). Sons of Rt. Hon. Charles Arbuthnot, M.P. Two boys, the elder seen H.L., looking to right, the younger looking over his brother's shoulder. Soft ground etching in facsimile of the original drawing by Sir T. Lawrence. Engraved by F. C. Lewis. India Proof.  $9\frac{1}{2}$  by  $7\frac{5}{8}$ . (SOLD)
- 5 Argyll (Archibald Campbell, First Duke of), died 1703. Line, H.L., in wig and armour. Oval frame on pedestal; inscription beneath. Rare. 15<sup>1</sup>/<sub>2</sub> by 12. Medina-Vanderbanck. £1 1s
- 6 Bedford (John Russell, First Earl of), 1486-1555. K.G. High Steward of Oxford University. Line, H.L., in cap, holding wand. Oval, with ornaments. Brilliant Impression, with large margins. 1739.  $14\frac{1}{4}$  by  $8\frac{3}{4}$ . Houbraken, Sc. IOS
- 7 Blachford (John), 1684-1748. D.D. Chancellor of St. Patrick's, Dublin. Mezzo., H.L., in wig, gown and bands. Oval, in a square. 11<sup>1</sup>/<sub>4</sub> by 8<sup>7</sup>/<sub>8</sub>. J. McArdell, Sculpt. £1 105

- 8 Bloxham (Miss). Niece of Sir T. Lawrence. Head of a child. Soft ground etching, coloured
- Boyle (Hon. Robert), 1627-1691. F.R.S. Philosopher. Line, H.L., in cloak. Oval, with ornaments. Brilliant Impression, with large margins. 13<sup>5</sup>/<sub>8</sub> by 8<sup>5</sup>/<sub>8</sub>. J. Kerseboom—G. Vertue. 128 6d
- 10 Boynton (Lady Mary). Eldest daughter of James Heblethwayte, Esq. Married Sir Griffith Boynton, Sixth Baronet of Barmston, Co. York, who died in 1778. Afterwards married John Parkhurst, Esq., of Catesby Abbey. Mezzo., W.L., standing; hair dressed high, with strings of pearls; richly trimmed dress with lace sleeves, 11 Brisacier (Guillaume De). Secretaire des Commandemens de La Reyne. H.L., in cloak, emprisidered collar: logic white lair bair.
- broidered collar; long white hair. Oval, within square engraved border, with arms beneath. Fine Impression. Very rare.  $13\frac{1}{2}$  by  $10\frac{1}{2}$ . N.
- Fine Impression. Very rare. 13½ by 10½. N. Mignard—A. Masson. £28 **Brownlow** (John Cust, First Earl), 1779-1853. G.C.H. F.R.S. Mezzo., T.Q.L., standing, in uniform, hand on sword. Fine Proof before the Title on India paper. Pubd. 1843. 17½ by 13%. M. Shee—S. Cousins. £1 15s **Buchanan** (George), 1506-1582. Scottish Historian and Poet. Line, H.L., in plain coat, white collar. Oval. with ornaments. Brilliant
- white collar. Oval, with ornaments. Brilliant
- white collar. Oval, with ornaments. Brilliant Impression, with large margins. 1742. 14<sup>1</sup>/<sub>4</sub> by 8<sup>3</sup>/<sub>4</sub>. F. Pourbus—J. Houbraken. 128 6d
  14 Calcott (Sir Augustus Wall), 1779-1844. R.A. Landscape Painter, Chorister at Westminster Abbey. When Mr. Calcott. Mezzo., H.L., in cloak, white collar. Open Letter Proof, with margins. Pubd. 1832. Rare. 13 by 9<sup>3</sup>/<sub>4</sub>. 18s
  15 Carleton (Henry Boyle, *Baron*), died 1725. Statesman. Patron of Addison. Line, H.L., in Chancellor of the Exchequer's robes. Oval.
- in Chancellor of the Exchequer's robes. Oval, with ornaments. Brilliant Impression, with large margins. 1741. 14<sup>1</sup>/<sub>8</sub> by 8<sup>7</sup>/<sub>8</sub>. G. Kneller-J. Houbraken. 12s 6d

- 16 **Canning** (Rt. Hon. George), 1770-1827. States-man. Educated at Eton and Christ Church, Oxford. Mezzo., T.Q.L., seated, in plain dress, white necktie, elbow resting on table. Fine Proof before the title, with margins. Pubd. 1827.  $11\frac{7}{8}$  by  $9\frac{1}{8}$ . T. Lawrence—C. Turner. £2 25
- 17 Catherine (of Aragon), 1485-1536. First Queen of Henry VIII. Line, H.L., in plain black Oval, with ornaments. Brilliant Imhood. pression, with large margins. 144 by 9. Holbein—J. Houbraken. 12s 6d
- 18 Chaloner (Sir Thomas). Erroneously identified as Sir T. C. the younger, who died 1615, probably one of his sons. Mezzo., H.L., in broad lace collar; satin cloak, with slashed sleeves. Brilliant Impression, with full margins. Pubd. 1778. 15<sup>1</sup>/<sub>2</sub> by 12. Van Dyck—Earlom. £4 10s 19 **Chambers** (Sir William), 1726-1796. R.A., F.R.S. Architect. Designed Somerset House.
- H.L., seated at a table, holding pencil. Oval stipple. Pubd. 1785. 4 by 318. J. Reynolds-J. Collyer. 6s
- Circle, in a square, on pedestal. Pubd. 1769. 20 67 by 5. Falconet-Pariset. 7s 6d
- 21 **Coke** (Sir Edward), 1552-1634. Lord Chief Justice of England. Line, H.L., in ruff and robes of Chief Justice; ornamental border. 14 by 9. Houbraken, Sculpt. 12s 6d
- 22 Colquhoun (Patrick), 1745-1820. Police Magis-trate and Statistical Writer. Mezzo., T.Q.L., seated, in plain dress, holding papers. Pubd. 1802.  $17\frac{1}{2}$  by  $12\frac{3}{8}$ . S. Medley—R. Dunkarton. £I IOS
- 23 **Copleston** (Edward), 1776-1849. D.D. Bishop of Llandaff. *Provost of Oriel College*. When Provost. Mezzo., N.W.L., seated, in academical dress, holding cap; charter on table. Fine Impression, with full margins. Signed in pencil by Sam. Cousins. Pubd. 1822. 17<sup>1</sup>/<sub>4</sub> by 13<sup>3</sup>/<sub>4</sub>. T. Phillips—S. W. Reynolds—S. Cousins. £2 25
- 24 Coventry (Thomas Coventy, First Baron), 1578-1640. Lord Keeper. Line, H.L., in robes. Oval, with ornaments. Brilliant Impression, with margins. 1741. 14<sup>1</sup>/<sub>8</sub> by 8<sup>3</sup>/<sub>4</sub>. J. Houbraken, Sc. 125 6d
- Gromwell (Thomas).-See Essex, Earl of.
- 25 De Valangin (Francis Joseph), 1720(?)-1805. M.D. Swiss Physician in London. Stipple, H.L., in wig, plain coat, white frilled cravat. Oval, with margins. Pubd. 1793. 64 by 58. L. Abbott—J. Collyer. 12s 6d
- 26 Dorset (Thomas Sackville, First Earl of), 1536-1608. K.G. Lord Treasurer. Line, H.L., in hat and furred robe, holding wand. Oval, with ornaments. Brilliant Impression, with large margins.  $13\frac{1}{2}$  by  $8\frac{3}{8}$ . G. Vertue, Sc. 10s
- 27 Dorset (John Frederick Sackville, Third Duke of). K.G. Diplomatist. Educated at West-minster. Mezzo., H.L., in plain coat, white bij. K.G. Diplomatist. Educated at West-minster. Mezzo., H.L., in plain coat, white cravat. Pleasing portrait, with full margins. Pubd. 1799. 12 by 10. Sir J. Reynolds—T. Hardy. £2 2s
  28 Essex (Thomas Cromwell, Earl of), 1485-1540. K.G. Minister of Henry VIII. Line, H.L., in cap and furred gown. Oval, with ornaments. Brilliant Impression with large margins 1730.
- Brilliant Impression, with large margins. 1739. 14<sup>1</sup>/<sub>8</sub> by 8<sup>3</sup>/<sub>4</sub>. H. Holbein-J. Houbraken. 12s 6d

- 29 Essex (Robert Devereux, Second Earl of), 1567-1601. K.G. Favourite of Queen Elizabeth. Line, H.L., in ruff and lace collar. Oval, with ornaments. Brilliant Impression, with large margins. 1738.  $14\frac{1}{8}$  by  $8\frac{3}{4}$ . J. Oliver—J. Houbraken. 105
- 30 Essex (Catherine (Stephens), Countess of), 1794-1882. Second wife of the fifth Earl. Singer. When Miss Stephens. Stipple, H.L., in low-necked white dress. Proof finely printed in colours, with margins. Pubd. 1818. G. H. Harlow—R. Cooper. £8 105
- 31 Fairfax (Thomas Fairfax, Third Baron), 1612-1671. General for the Parliament. Line, H.L., in armour. Oval, with ornaments. Brilliant Impression, with large margins. 1738. 14<sup>1</sup>/<sub>8</sub> by 8<sup>3</sup>/<sub>4</sub>. S. Cooper—J. Houbraken. 12s 6d
- 32 Fisher (John), 1459-1535. D.D. Bishop of Rochester. Studied at Cambridge. Line, H.L., in cap, fur-trimmed rochet. Oval, with ornaments. Brilliant Impression, with large margins. 14 by 8<sup>3</sup>/<sub>4</sub>. Holbein-J. Houbraken. 10s
- 33 Flaxman (John), 1755-1826. Eminent Sculptor. Mezzo., H.L., in plain dress, white cravat. Fine Impression, with full margins. Pubd. 1827. 10 by  $8\frac{1}{4}$ . £1 15s
- 34 Fleetwood (Charles), died 1692. Parliamentarian. Lord Deputy of Ireland. Line, H.L., in armour. Oval, with ornaments. Brilliant Impression, with large margins. 1740.  $14\frac{1}{4}$  by  $8\frac{3}{4}$ . R. Walker—J. Houbraken. 12s 6d
- 35 Fothergill (John), 1712-1780. M.D. F.R.S. Physician. Chief founder of the Quaker School
- at Ackworth. Stipple, H.L., in wig and plain coat. Oval, in red, with margins. Pubd. 1782. 378 by 3. Livesay—Bartolozzi. 128 6d
- 36 Gage (John), 1786-1842. F.R.S., F.S.A. Anti-quary. Author of History of Hengrave. Mezzo., H.L., in cloak, white collar. Open Letter Impression, with margins. Pubd. 1824. 85 by 74. M. Carpenter—T. Hodgetts. 12s 6d
- Mezzo., H.L., seated at a table, in private dress; hands on papers inscribed "Prologue." Fine Impression. Pubd. 1779. 13<sup>§</sup> by 11. Sir J. Reynolds—T. Watson. £7 105 37 Garrick (David), 1717-1779.
- 38 Gillray (Mr. James), 1757-1815. Eminent Cari-caturist. Mezzo., H.L., in plain coat with white cravat. Oval, in engraved square border. Fine Impression of the second state, with margins. Pubd. 1819.  $12\frac{3}{8}$  by  $10\frac{3}{4}$ . J. Gillray—C. Turner. £I IOS
- 39 Girtin (Thomas), 1775-1802. Eminent Lands-cape Painter. Mezzo., H.L., in dark coat and white cravat, holding porte-crayon and sketchbook. Fine Impression. First state (no margin over the plate mark). 1218 by 1018. J. Opie-S. W. Reynolds. £4 45
- 40 Godolphin (Sidney Godolphin, First Earl of), 1645-1712. K.G. Lord High Treasurer. Line, H.L., in plain dress, with wand. Oval, with ornaments. Brilliant Impression, with large margins.  $14\frac{1}{8}$  by  $8\frac{3}{4}$ . G. Kneller—J. Houbraken. 12s 6d
- 41 Gordon (Lord George), 1751-1793. President of the Protestant Association. Stipple, H.L., in plain coat, white cravat. Oval, in brown, with margins. Pubd. 1783.  $3\frac{1}{4}$  by  $2\frac{1}{4}$ . C. Knight, Sculp. 8s

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# ROYAL COLLEGE OF SURGEONS OF ENGLAND.

## HUNTERIAN LECTURE

#### ON

## TESTICULAR TUMOURS OF CONGENITAL ORIGIN,

TO BE DELIVERED IN THE THEATRE OF

#### THE COLLEGE IN LINCOLN'S INN FIELDS

ON WEDNESDAY, FEBRUARY 23RD, 1927,

AT 5 O'CLOCK P.M.,

#### BY

PROFESSOR J. HOWELL EVANS, M.A., M.D., M.CH. (OXON.), F.R.C.S.

Brief survey of :

- (a) Development of the Common Sex-Gland;
- (b) Differentiation into Male or Female Gonad;
- (c) Relation and Comparative Positions-Abnormalities.

#### Cysts and Cystic Conditions of the Testis.

- (a) Human;
- (b) Comparative ;
- (c) Homologous Testicular and Ovarian Cystic Conditions.

Teratomata of the Sex-Gland.

- (a) Dermoid Tumours ;
- (b) Teratomata and Cystic Disease;
- (c) Pigmentation and Pigments in Tumours of the Testis.
- (d) Chorion-Epithelioma in the Male.

Teratomata and Malignancy.

- (a) Malignancy in Teratomata;
- (b) Embryonic view of the origin of Cancer;
- (c) What determines this Malignancy?

Pathogeny of Teratomata-History.

- (a) Theories of the Etiology of Tumours of the Testis ;
- (b) Experimental Work ;
  - (c) Parthogenesis—in the mammal?

Present position of the Diagnosis and Treatment in relation to Malignant Disease of the Testis and Ovary.

S. FORREST COWELL,

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Secretary.


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MR. J. HOWELL EVANS M. A. Oxon., DM., F.R.C.S. 3 CHALFONT ROAD

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Figures in brackets :-

Indicate number of prints
viz: PAGE 1. Armstrong (2) = Two prints.

The first name appearing under an item indicates the artiste who made the original painting. The name on the right hand indicates the name of the engraver :-

> viz: PAGE 1 (Subject) Alcock (3) = Three prints J.H.TAYLOR (Artist) TURNER (Engraver)

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- (1) Without letters = no wording.
- (2) Open letters = Lettering affected with an OPEN hand.

MR. J. HOWELL EVANS M. A. CHON., DM., F. 2.C.B. J GLAIDONT ROAD CLEORD.

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ANDREW, J. G. John Collier 1894 without letters

ARMSTRONG - JOHN, M.D. (2)

Sir Joshua Reynolds - Edwd. Fisher. ALLISON, WILLIAM PUTTERY, M.D. (2) (see again)(p, 2) George Richmond - Hen ry Robinson - open letters. ALCOCK, WATSON, MR.C.S. (3) C.Turner A.R.A. without letters J.H. Taylor ABERNETHY, J. (3) Sir Thos. Lawrence - McInnes without letters ALLEN, WILLIAM, F.R.S. (see over) First President of the Pharmaceutical Society of Great Britain H.P.Briggs, R.A. - H.C. Sherton - open letters. ALLEN, WILLIAM. Lecturer at Guy's. Chemist. T.F. Dichsee - Day & Haghe unlettered (see below) ASH, JOHN, Esq. M.D. (2) C. Tomkins - unlettered ANTCIERPIANI, R.P. John Negern (2) Miercuelt - F. Muiller 1608

ASH, JOHN, M.D.

Sir Joshua Reynolds - C. Tomkins

ARMSTRONG, CHARLES. Physician 1750 - 1815 Geo. Dance - Wm. Daviell. ANDREW, J. C. John Gollier 1894

ARLESTRONG - JOHN, M.D. (.2) 817 Joshus Reynolds - Edwd. Flaher.

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ABERNETHY, JOHN, Esq: F.R.S. Surgeon to St. Barts and Lecturer in Anatomy and Surgery. Sir Thos. Lawrence - Wm. Bromley

open letters

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Sir Joshua Reynolds - S.V. Reynolds

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St. Barts - Hodgetts



ASEMW, A. M.D., P.R.S., F.R.C.P.I. 35. Barts - Hodrotta

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ADDISON, THOMAS, M.D.

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Sir Thos. Lawrence - McInnes

ARNOTT, J.M. Surgeon at Middlesex Hospital. Professor of Surgery in King's College Hospital, London.

T. Bridgford

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AN TWERP, WM. b. 1604

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" A most strenuous opponent of Vaccination. Wrote 'Efficacy of Electricity to remove Female Obstruction' Lectures on Medical application of Electricity. Reason for objection to the "Practice of Vaccination. Report on True State of Cow Pox"

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## John B Lich (Bled Meby, 1816) . Act 70.

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era, THORAS, BHQ., F.R.S. 1492 - 1600

Coolegy, Singe College Hospital, London, etc.

P.R.G.S. Dental Surgeon at Goy's and St. Themes's . Inctures to Amsterny.

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P. 13.

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P. 42

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P. 42

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641 .9

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open letters

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XX

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P.47.



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(2) Jameson

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-. COANCE, ADVANCE

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Sir Thos. Lawrence, P.R.A. - Sam Cousins A.R.A.
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P.49
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ANTOHTON, SIR. W.

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Lecturer in Practice of Phys ic. Edinburgh

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(2) William Owen R.A., 1815 - 5.8. Ager.

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MACKINTCE H, THE RIGHT HONBLE. Sir James MP. for Nairn

Studied at Edinburgh Diploma in Medicine 1787 M.P.Nairne 1813

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open letters

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J.S. Strutt - J.Young

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Physician to H.R.H. Prince Leopold and T. R. H. Duke of York and Princess Charlotte

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J. Opie - Facius

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P. 57

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OYES, HENRY, M.D. (and Mr.Micoll)

MIR

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AGBRINE, DAVID. M.D. (Dublin) Reymolds - .J.F. Suith. - engraver

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THOMPSON, ASHER (? Henry) (2) without letters TWENILOW, JOHN, of Hatherton, Cheshire 1796 - 1848 (3) F. Aylmer - S.W. Reynolds open letters TREW, D. CHRISTOPher JACOB. F.R.S. Jacob Haid - Jacob Haid THACKERAY, JOSEPH, M.D. Physician to Bedford Infirmary J.Jackson R.A. and B.Duffa - Wm.Ward (2) open letters TOURNEFORT, JOSEPH PITTON, M.D., Author of "Institutes of Botany" (2) Hopwood, sculp. THOMPSON, V. unlettered TOWNSHERD, Rved. JOSEPH. 1739 - 1816 Author of "A Journey through Spain" and "The Physicians Vade Mecum" (1781) Chief re Herbs Opie, R.A. - Milton TEMPLE, RICHARD, M.D., S.L.M.S. Wm. Owen - J. Young. open letters (2) TOdD, DR. M.B. Blakesjon - Zobel unlettered.

P. 78

ROMPSON, ACHER (? Heary) (2) without lette

TAUNILOW, JOHN, of Hatherton, Cheshire 1796 - 1848 (3) F. Aylmer - 8.W. Reynolds

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THEM, D. CHHISTOFASH JACOB. F.R.S.

HACKHWAY, JOHNFH, M.D. Physician to Bedford Infirmary J.Jackson R.A. and S.Doffs - We.Ward (2)

> TOURNEFORT, JOEENH PITTON, M.D., Author of "Institutes of Botany" (2) Horwcod, sculp.

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COWNERED, RVed. JOSEFH. 1739 - 1816

"The Physicians Vade Meoum" (1781) Chief re Herba

Opte, R.A. - Milton

TEMPIE, RICHARD, M.D., S.L.M.S.

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THORPE, ROBERT, M.R.C.S.

A. W. Wilkins - S.W. Reynolds

un lettered

THORPE, ROBERT, M.R.C.S.,

A. W. Wilkins - S.W. Reynolds

(2) Autographed unlettered

THOMPSON, THOMAS, M.D., Edin: Faed.

unlettered

TREW, D.C.J., F.R.S., 1695 - 1769 Physician and Botanist Smissen - I.I. Haid (3)

TRILLERUS, DANIEL WILLIAM.

Dr. of Philosophy and Medicine F.Lippold - Haid

THOMSON, A.J. M.D., F.L.S., S.S.

Professor of Medica and Therapeutics and of Forensic Medicine at the University College, London.

T. Bridgford

unlettered

THORNTON, ROBERT JOHN. M.D.

Ruevel - Ridley

TRAVERS, BENJAMIN

Huntercon crater etc. Studied under Astley Cooper

unlettered



P. 80 and

P. 81

TODD, ROBERT BERKELEY. M.D., F.R.S. D. V. Blakiston - G. Zobel (2)

open letters

THORNTON, ROBERT. J., M.D. Lecturer on Med. Botany Russell - Bartologgi

open letters

PAGE 81

URE, ANDREW, M.D., F.R.S., M.S.S., M.A.S., Lomd: T. Bridgford.

D. V. Blantaton - C. Sobel (2)

> PHONETTOR, ROBBET, J., M.D. Lesturer on Med. Botany Bussell - Partificant

PAGE 61

RE, ANDREN, M.D., F.R.B., M.G.S., M.A.S., Londs T. Bridgford.

 $\bigcap$ 

P. 82

VINCENT, JOHN P. 1776 - 1852

(3) E. U. Eddis - Henry Cousins

President Royal College of Surgeons Surgeon to Bartholomew's Hospital 1807 - 1847

without letters

VANCE, GEORGE. Esqr:

Eminent Surgeon

Wm. Gush - T. Lipton

open letters

VINCENT, FABIUS. P.

Doctor of Philosophy and Medicine

VORSTIUS, A.E.,

Professor of Medicine 1565 - 1676 Dutch Physician

VEUNER, T. M.D., born 1575

VORSTIUS, ADOLPHUS.

Professor of Medicine and Botany

G.Petri - C.Bashicum

VORSTIUS, E.

Doctor and Professor

VERSALIUS, ANDREAS.

J. de Calcar - W.Holl

open letters

de VALANGIN, FRANCISCUS JOSEPHUS ROLAND, R.C. Med. London. M.D.

Abbott - Collyer

NCHNT, JOHN F. 1775 - 1852 (3) E. U. 3301s - Henry Coustna Fresident Royal College of Surgeons Surgson to Bartholomew's Hespital

without latters

ANCE, GEORGE, Esgri Eminont Surgeon

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VINCENT, PABIUS. P.

Doctor of Philosophy and Medicine

. . H. A . BUITEROV

Professor of Medicine 1563 - 1576

VERMER, T. M.D., bom 1575

VORBTIUS . ADOLPHUS .

Professor of Medicine and Bound

G.Petri - C.Bashicum

VORSTIDE, E.

TERSALLUS, ANDREAS.

avertetere

JUS JOBERHUS ROLAND, R.C. Med. Lon

P. 83 WARREN, RICHARD. M.D., Physician to His Majesty and H.R.H. Prince of Wales (see below) T. Gainsborough, R.A. - J. Jones WARREN, RICHARD, M.D., F.R.S., & S.A. (as above) G. Stuart - S. Bartologgi (2)open letters WOLLASTON. WM. HYDE., M.D., F.R.S. (see before and below) Sir Thos. Lawrence - F.C. Lewis open letters WOLLASTON, WM. HYDE. M.D., F.R.S., (see below) Sir Thos. Lawrence - F.C. Lewis unlettered print. WITHERING, WILLIAM. M.D., F.R.S. Fellow of Linnean Society. (3) Breda - Ridley WOLLASTON, Wm. Hyde. M.D. (see also before and above) T. Phillips - W. Ward Physiologist, Chemist and Physicist without letters WATSON, SIR THOMAS. Bart: M.D., F.R.S. President of the Royal College of Physicians of London. George Richmond, R.A., - Sam Cousins. open letters. WILSON, DAVID. M.D.,

J. Forbes Robertson @ Barlow

without letters.

WAREHN, RICHARD. M.D.,

of Weles (see below) T. Gainsborough, R.A. - J. Jones

ALRENN, RICHARD, M.D., F.H.E., & S.A. (as above) G. Stuart - S. Bartologgi (2)

WOLLASTON. WM. HIDB., M.D., F.R.S. (see before and below) Bir Thos. Lewrence - F.C. Lewis oren letters

> WOLLASTON, MM. HYDE, M.D., F.R.S., (see below) Sir Thes. Levrence - F.C. Lewis

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VOLLABTON, Wm. Hyde. M.D. (see also before and shove) T. Phillips - W. Ward Physiologist, Chemist and Physicist without lotters

MATSON, SIR THOMMS. Bart: M.D., F.H.S. President of the Royal College of Fuyeleians of London. George Richmond, R.A., - Sam Cousing.

> WILSON, DAVID. M.D., J. Forbes Robertsen 9 Barlow

without letters.

## 28 .9

WOLLASTON, WM. HYDE., M.D., (also see above and over) J. Jackson -Wm. Ward without letters

WARREN, PELHAM, M.D., F.R.S.

(3) J.Linnell - J.Linnell 1835

WOODVILLE, WM. M.D., F.R.S. Author of "Medical Botany" (2) ABbott - Pond

WARING, EDWARD. M.D., F.R.S. (2) Kerrich - Facius

WEST, JOSEPH of Welbourne, Yorkshire.

(4) 1798, S. W. Reynolds - S.W. Reynolds.

WILSON, DR. ERASMUS (see again) (3) Stephen Pearce - Alexander Scott. Duplicate sent to Warren unlettered

WARD, JOSHUA

Notorius quack doctor

unlettered

P. 84

WATSON, Jno. Richmond - F. Holl

unlettered

WINSLOW, FORBES. B. M.D., L.L.L. J.P.Knight - W. Carlos

unlettered

WOOD, Wm. RICHARD

Dougarerun

JULISTON, WM. HYD2., M.D., (elso are above and aver). J. Jaokaco -Wm. Ward Without 1065279

> WARREN, FEIHAM, M.D., F.R.S. (3) J. Manuell - J. Linnell 1833

Author of "Medical Botany" (2) Abbott - Poud

> WARING, ERWARD, M.D., F.S.S. (2) Ederiob - Facius unlet

WEST, JOSEPH of Welbourne, Yorkshire. (b) 1798, 8, W. Reynolds - 8.W. Reynolds.

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J.F.Kolght - W. Carlos

NOGD, NM. RICHLIN

P. 85

WARDLOW, DR. RALPH

Macnee - Faed

unlettered

WILSON, ERASMUS, F.R.C.S., F.R.S. Professor of Dermatology to the Royal Society of Surgeons Eng.

Stephen Pearce - A. Scott

open letters

WOODGATE, GEORGE. M.D.,

Touched proof signed C.Turner.

unlettered

WATSON, THOMAS. M.D.,

J. Richmond - F.Holl

open letters

WEBB, SIR. J. 1772 - 1852

Surgeon General. Army Surgeon Director General of Ordnance Medical Dept. Published account of Plague among force in Egypt.

by W. Hunter. Artists' proof (2)

unlettered

WILSON, ERASMUS

S. Pearce - Scott.

autographed

unlettered

WILSON, DR. H. (see again)

unlettered

WHITE, WILLIAM FOSTER

Treasurer of St. Bartholomew's Hospital 1864

J.P. Knight - J. C. Armytage

open letters

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Director of Royal Asciabi Society Baden Professor of Sanscrit, Oxford etc. 1786 - 1880 Studied medicine at St. Thomas' Hospital Surgeon to East India Company, Bengal.

Sir J. Watson Gordon - Wm.Walker.

open letters

WILLIS, THOMAS. M.D. d. 1675

G. Virtue - J. & P. Knapton

WILKES, RICHARD. M. D.,

S. Shaw - Granger

WILDENOW, CHARLES LOUIS

Doctor and Botanist Professor of Natural History at Berlin 1765 - 1812

A. Tardieu - A. Tardieu

open letters

WILLIAMS, CHARLES. J.B., M.D., F.R.S.

T. Bridgford

WILLIAMSON, HUGH, M.D., LL. D.

Trumball - Thomason

WILSON, JAMES ARTHUS, M.D., St. George's Hospital Mrs.E.Walker - W. Walker (4) unlettered

WOISTEIN, J.B.

S. Knuf - C.Kohl

WILLIS, THOMAS. M.D. Professor of Natural Philosophy, Oxford. M.R.C.P., F.R.S.



Sir J. Watson Gordon - Walker.

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WILLIS, THOMAS. M.D. d. 1675 G. Virtus - J. & P. Enapton

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Doctor and Botanist Professor of Natural History at Berlin 1765 - 1812

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MILLIANS, CHARLES. J.B., M.D., F.S.S.

WILLIAMSON, HUGH, M.D., LL. D.

WILSON, JAMES AR1903, M.D., St. Goorge's Hosp

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LE, THOMAS. M.D.

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WARING, EDWARD. M.D., F.R.S., Mathmetician Cambridge Professor, St. Mary Magdalen College. Cambridge Kerrich - Facius

open letters

WARNER, J. Esqr. F.R.S., 1717 - 1801 Guy's Hospital 1746 - 1780 (2) S.Medley - N.Branwhite

WRENCH, SIR BENJAMIN. Kt. M.D., NORWICH. 1st Baron unlettered

WILLIS, DR. Physician for the treatment of insanity Attended George III

T. Russell - Jas. Collyer

open letters

WOODWARD, DR.

Physician and Geologist 1665 - 1728 W. Humphrey (fecit)

WILLIS, DR. as above Attended George III etc. J.Nixon - E. Bartologgi, R.A.

open letters

WARD, JOSHUA. Esqr. Quack doctor 1685 - 1761 E.Loving - J.Clark

WILSON, JAMES. Malvern R.J.Love - d'Orsay fecit

unlettered



berettelau

WITTBAR, M.S.

J.Kupelgsky - B. Vogal 1735

WOOLASTON. Wm.Hyde. M.D., F.R.S. Sir Thos.Lawrence - F.C.Lewis

WARDROP. JAMES. M.D. coloured Geddes - J.Thomson

unlettered

WILKES. T.

unlettered

WITHERING, WILLIAMS. M.D., F.R.S., etc. Bredafixx - Bond - Bond

open letters

WILLIS, DR.

R.Bowyer - J.Fittler

WOLLASTON, Wm. Hyde. M.D., F.R.S., J.Jackson R.A. - J.Thomson

WARDROP. JAMES. M.D., Geddes - J.Thomson

unlettered

WILSON. JAMES. F.R.S. Pope - Jackmann

unlettered

WELLS, SPENCER

WELLS, T. SPENCER

without letters



WILLIG, DR.

P. 89

WILSON, JAMES ARTHUR. M.D.,

Mrs. E. walker. - W. Walker

Senior Physician to St.George's Hospital and Senior Censor of the Royal College of Physicians.

open letters

WAINWRIGHT, J.W.

A.Riffingille - C.E.Wagstaff Member of the Royal College of Surgeons

without letters

WOODVILLE

auscan - Perrot

WOLLASTON, WILLIAM HYDE. M.D., F.R.S., etc.

John Jackson R.A. - Wm.Shelton

open letters (see later)

WALLICH, DR. NATHANIEL. M. & PH.D.,

Knight of Royal Danish Order of Danneborg F. R. L. S. H. S. of London etc. by John Lucas

(2) Portrait in possession of Major Seul Hardwicke

open letters

WHITE, ANTHONY. Esqr.

Late President of the Royal College of Surgeons Senior Surgeon to the Westminster Hospital etc. First to escise head of Femur for disease of hip joint.

T.F.Dichsee - W.Walker

open letters

WHITE, ANTHONY. M.B. 1782 - 1849

T. F. Dichsee - W. Walker

without letters

(3)


LOCI. JAMES ARTHUR. M.D., RES. E. Valker, - W. Walker

Bentor Physician to St.George's Heapital and Sabier Canadr of the Royal College of Paraicizes.

.W.T. THOIMMIAN

A.Riffingille - G.H.Wagataff Memors of the Royal College of Surgeons

without letters

MULLIVGOON

auagan - Penrot

OLLASTON, WILLIAM HYDE. M.D., P.R.S., Sto.

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(ase later)

LLICH, DR. MACHANIEL. M. & PH.D.,

Entant of Royal Danish Order of Danueborg F. R. L. S. R. S. of Landon wig.

(2) Portrait in pessession of Major Soul Rardeleke

.TOOR .THOMPYCL . CTIEN

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without lefters

WADDALE, JOHN MD. 1731 - 1807 Practised at Leicester Attended George III Solr. Williams - Edward Bell (2)

coloured print

(in pencil)

WAINWRIGHT, T.W. (?) M.R.C.S.

Print Rippingill - Wagstaff. sculp.

WARREN. RICHARD. M.D., F.R.S., F.S.A.

W.Evens - Bartolozzi

Physician to His Majesty H.R. Prince of Wales T.Gainsborough R.A., J.Jones



SDALE, JOHN MD. 1731 - 1807 Prestaèd at Leicester Attended George III Solr. Williams - Edward Bell (2)

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(in pencil) WaINWRIGHT, T.W. (?) M.R.G.S. Print Rippingill - Wagataff, aculp.

WARREN, RICHARD, M.D., F.R.S., F.S.A. W.Evens - Bartolouri Physiolan to His Majesty H.R. Frince of Wales T.Gainsborough R.A., J.Jones

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YOUNG. THOMAS. M.D. G.Kneller - R.White

unlettered

YOUNG. WM. M.D., F.L.S.

Senior Physician to Sheffield General Infirmary.

Jas.Moore - E.Scriven (signature)

open letters

YOUNG. WM. M.D.

J.Moore - E.Scriven

without letters

YOUNG, THOMAS. M.D.

unlettered

YOUNG, THOMAS. M.D., Sir.Thos.Lawrence - S.Adcoch

unlettered

YOUNG, THOMAS, M.D., F.R.S., F.L.S. Sir.Thos.Lawrence - S. Adcoch Coloured unlettered

YOUNG, THOMAS. M.D., F.R.S., F.L.S. (3 in all) Sir Thos. Lawrence - . . S. Adcoch

unlettered

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YOING. WM. M.D., F.L.S.

Senter Physician to Sheffield General Infirmary.

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YOUNG. WM. M.D.

deviros.g - ercoM.L

without letters

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YOUNG, THOMAS, M.D.,

Sir.Thos.Lawrence - S.Adcoch

ound, THOMAS, M.D., F.R.S., F.L.S. Sir.Thos.Lawrence - S. Adcoch

YOUNG, THOMAS. M.D., F.R.S., F.L.S. (3 in all) Sir Thes. Lawrence - .. S. Adosch unlettered ZEISOLDUS, J.

. :

Physician and Professor J.Richter - J.Durs. P.92



## REPORT ON THE J. HOWELL EVANS COLLECTION OF MEDICAL PRINTS

The Howell Evans collection contains about 1200 prints. It is difficult to give an exact figure because the collection is not in any order at the present time, but is disposed in various loose packets, folders and boxes. There are a number of duplicates and triplicates, but many of these represent different states of the print, i.e. some are proof plates before letters.

There is a typed catalogue of the collection extending to 92 pages. This is an exact copy of a rough manuscript catalogue made by Mr. Howell Evans. This catalogue lists between 800 and 900 items. It deals only with portrait prints. There are many errors, particularly in regard to the names of the persons portrayed, but the entries are quite sufficient for all purposes of identification.

The collection contains examples of the various types of prints (mezzotints, line, etchings, lithographs and stipple). Approximately 56 of the finest mezzotints are framed and glazed.

The condition of the prints is, on the whole, very good, but in the conditions in which they are being kept at the present, they will inevitably suffer some damage unless they are given proper attention.

By far the most important part of the collection consists of engraved portraits of British medical men. This is a very comprehensive collection which will bear comparison with all but the largest collections known to me. Practically all the important figures in British medicine are represented. The mezzotints are very fine and are nearly all in first class condition.

There are a large number of prints taken from such works as Pettigrew's Medical Portrait Gallery,



Layland's <u>Contemporary Medical Men</u>, Kay's <u>Edinburgh</u> <u>Portraits</u> and from the <u>Gentleman's Magazine</u> and the <u>European Magazine</u>.

There are a number of early photographs of British medical men made by the London Stereoscopic Co.

There are several bundles of portraits of foreign medical worthies, comprising quite a good representative collection of early prints. Many of these are taken from Sambucus' Icones (1603) and there are also a few good mezzotints and line engravings. The total number of foreign portraits is, however, quite small, and it seems obvious that the British portraits represent Mr. Evans' main interest. There are no portraits of 19th century French or German medical men.

One bundle contains engravings of notorious quacks such as Valentine Greatrakes, Joshua Ward, and Chevalier Taylor.

Apart from portraits, there are a few of the well-known subject prints. These include two or three of Teniers' pictures of Barber-Surgeons and quacks in action, a fine mezzotint of Rembrandt's Anatomy, the Siege of Warwick Lane, and some caricatures. There is also a set of the <u>Vanity Fair</u> Cartoons of 19th century medical men by "Spy" and "Ape" - apparently complete and with the accompanying biographical sketches. There are no Rowlandsons or Gilrays. There are no topographical prints i.e. pictures of medical colleges, hospitals and the like. pictures of

There were several bundles of /pathological and operation specimens, presumably made by or for Mr. Evans. They include a number of water colours and, in some cases, are accompanied by the relevant notes.

In addition to the prints, there is a framed painting of Thomas Linacre, dated 1509. It differs from the Windsor Castle portrait which is attributed to

-2-



Quentin Matsys and a late copy of which is in the Royal College of Physicians, London. It was not possible to examine the picture closely, but it is probably a 19th century copy, although a very good one. The portrait is a very pleasing one and I would regard it as a most desirable item.

My general impression of the collection was that it is representative and of a high quality. So far as the British portraits go, I think it is relatively complete in that there is at least one print of almost every person of note. The coverage for some of the most important men is not so wide as that of the College of Physicians or the Wellcome collection, For example, there are, perhaps, six different prints of Harvey and of Jenner out of fifty or sixty that exist. A great many of these known prints are, however, minor variants: the Evans collection usually has a fine copy of the most important portrait.

I should say that the collection would be of the greatest value to a Historical Department, both for illustrative and teaching purposes. I think the price of £2,500 is a little high, and would suggest £2,000 as a more appropriate figure. Although some of the individual prints could not now be obtained for less than £50 or more, a very large number are the kind of thing that could, at one time, be bought for 1/- or 2/6 a piece. On the other hand, I think it would be practically impossible to amass such a collection at the present day and if it were possible, it would probably cost a lot more than £2,500 if it had to be acquired item by item.

21st September, 1960.

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W. J. Bishop

Quantin Matays and a late copy of which is in the notal College of Physicians, London. It was not possible to examine the picture closely, but it is probably a 19th century copy, sithough a very good one. The portrait is a very pleasing one and I would regard it as a nost desirable item.

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I should say that the sollestich would be it the greatest value to a Historical Department, both for 111 ustrative and teaching purposes. I think the price of 12,500 is a little high, and would suggest 12,000 as a more appropriate figure. Although some of the individual prints could not now be obtained for less than 250 or more, a very large number are the kind of thing that could, at one time, be bought for 1/2 or 2/6 a piece. On the other hand, I think it would be practical intoossible to amage such a collection at the present day and if it were possible, it would probably cost a lot

21 st September, 1950.

W. J. Bishop











