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

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#### 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.

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#### Exostosis of the Orbit.

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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

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#### 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

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## 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

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## 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

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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

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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

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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

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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

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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

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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

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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.

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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

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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

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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

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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

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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

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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.

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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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# 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