

Antisept

June, 1909

Verifinal

2m2, No4
No9. 6.6.
193151

FOR ENTERO-COLITIS ESPECIALLY
IN CHILDREN USE.

Antiphlogistine 532

(Inflammation's Antidote.)

Spread Antiphlogistine over the entire abdominal wall at least one-eighth inch thick and as hot as can be borne comfortably, and cover the dressing with a liberal amount of absorbent cotton or cotton wool and a bandage.



This will form a most satisfactory adjunct to the treatment of these cases, because it produces a depletion of the enteric and peritoneal vessel and stimulates the various plexuses, more particular the solar and hypogastric, relieves the pain, tenesmus, and muscular rigidity, and obviates the necessity for the administration of opiates and powerful heart stimulants.

To insure economy and the best results always order an original package and specify the size required-small, Medium, Large or Hospital Size.

MANUFACTURED BY

The Denver Chemical Mfg. Co.

NEW YORK, U. S. A.

GOODS STOCKED BY

SRI KRISHNAN BROS., MADRAS.

Economy or Reliability.

IT matters not what the nature of a man's calling be, he demands that the implements upon which he relies for effecting his work shall be trustworthy; the Engineer must have iron that will withstand the strain he anticipates; the Doctor, drugs that will secure the purpose he wishes. It is, however, well known that Economy and the obtaining of articles of a trustworthy nature can go hand in hand up to a certain point only; and in no case is it more difficult to decide as to when this point is reached, than in the selection of drugs. It is very easy to adopt a specious line of reasoning where money is concerned; with the economically disposed consumer of drugs, it is sufficient to be able to see that drugs sold by one firm have the same colour as that by another—the proof of quality on this physical basis is quite enough for the mind that does not trouble itself as to results aimed at, so long as the “bawbees” be pocketed. These facts are probably trite enough, and we presume our constituents will not fail to perceive the moral. We offer them drugs at the lowest possible price, consistent with their being of the best obtainable quality. We do not buy our drugs *en masse* from Agents; but having, by long experience of the markets, ascertained what firms have made a speciality of manufacture of certain drugs, deal with these direct, and in this way secure the very best quality procurable; moreover, our consumption is so large as to prevent the possibility of accumulation of drugs, and hence our customers—irrespective of our own care on the point—are safe from being supplied with articles that have undergone unfavourable changes as the result of storage in a tropical climate. For the patient to call in Medical advice, and then take the prescription to be compounded at Chemists who claim to sell “cheap drugs,” is to run the risk not only of foregoing the advantages of the Medical advice paid for, but in many cases to imperil life itself.

Let our constituents inspect our price list, side by side with that of *any respectable firm* in India; they will find that our prices compare most favourably with those offered, and that so far as cheapness and efficiency *can go hand in hand*, we have steadily arranged that they should do so.

Bring your prescriptions, therefore, to a firm that will supply you with pure drugs—that will not, as our Yankee cousins say, “fool about in the system, but will do what your Doctor, when tendering you advice, believes they will do;” put the consideration of your health at least on a par with your pockets, and do not buy drugs that cannot *at any price* be considered *cheap*, seeing they cannot be *efficient*.

W. E. Smith & Co., Ltd.
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THE ONLY TASTELESS preparation on the market which contains Cod Liver Oil in its entirety. The metabolized oil is obtained by the action of digestive ferments on pure Cod Liver Oil. This preparation has no equal as a tissue-building tonic. It is put up in two ways.

WATERBURY'S METABOLIZED COD LIVER OIL COMPOUND, plain;

WATERBURY'S METABOLIZED COD LIVER OIL COMPOUND, WITH CREOSOTE AND GUAIACOL, in plain unlettered pint bottles.

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ANTISEPTIC LOCAL ANÆSTHETIC.

Is now recognized by the leading surgeons throughout the world as a guarantee of satisfaction. Only the purest drugs are employed in its manufacture, and this together with the scientific methods and great care exercised in combining the ingredients insures its being an absolutely Perfect Local Anæsthetic.

THERE IS NO LIMIT TO THE SURGICAL OPERATIONS

Which can be performed absolutely without pain or danger by using this anæsthetic, as proven by the hundreds of letters we are daily receiving from reputable and prominent members of the medical profession throughout the world. It has often been imitated but never equalled, and is now the favorite and most universally used, for the reason that it is absolutely PURE to the last drop.

SAMPLE BOTTLE FREE.

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20 ozs., \$15.00.**

For sale by: Dr. W. H. Haller, Madras; Smith, Stanistreet & Co., Butto, Kristo Paul & Co., and Columbia Dental & Surgical Supply Co., Calcutta; E. Plomer & Co., Simla; E. M. deSouza & Co., Rangoon; Peake, Allen & Co., Lucknow; Kemp & Co. Ltd., Bombay; E. Brooks & Co., Karachi; Cargills Co., Ltd., Colombo, Ceylon; Georgetown Dispensary, Penang, S. S.; and S. Scott & Co., Kuala Lumpur, F.M.S.

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Each bottle contains 24 x 10 minim Capsules.

The oil in SAVARESSE'S CAPSULES being distilled by ourselves, Physicians may rely upon its absolute purity, and look for a definite result at a reasonably early date.

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LONDON & LIVERPOOL.**

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**SRI KRISHNAN BROS.,
CHEMISTS, MADRAS.**

ANASARCIN

(Contains in combination the active principles of *Oxydendron Arboreum*, *Sambucus Canadensis*, and *Urginea Scilla*).

RELIEVES**Valvular Heart Trouble****Cirrhosis of the Liver****Ascites and Anasarca****Exophthalmic Goitre -****Bright's Disease - -**

by reducing number of heart beats giving the heart rest, increasing the force of the Systolic, causing valves to close more thoroughly, thus preventing regurgitation, relieving the dyspnoea, and increasing heart nutrition;

by equalising the circulation, dilating the arterioles, thus relieving obstruction in the branches of the hepatic artery and portal radicles, securing better circulation in the liver, and more nutrition to the cells and interlobular connective tissue;

by causing resorption of the effused serum into the circulation, whence it is easily eliminated with salines.

by its inhibitory power over the cardiac fibres of the pneumogastric, controlling the heart's action, indefinitely without detriment, thus preventing enlargement, or restoring to normal if already enlarged, the thyroid arteries and the vessels behind the globes which cause prominence of the eyeballs and enlargement of the thyroid gland, both of which are consecutive to the cardiac disorder;

by its power to relieve distal engorgements through its wonderful equalising effect on the circulation, dilating the arterioles and establishing a normal physiological balance between arterial and venous systems.

SAMPLES AND LITERATURE TO PHYSICIANS.
For sale by the Leading Chemists in Madras.

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For your own good be sure.

If a dealer offers you something else, insist on having Stearns' Wine. There is nothing like it: though there are some preparations made to *look* like it. Stearns' Wine is put up in tall, long-necked bottles. The body of the bottle, at the bottom, is shaped like a triangle with the corners cut off, and the front side is a bit rounding. Remember the shape, look for our name on the label, and you will get the right kind: the kind that has helped millions of people back to health and strength.

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MERGAL.**A NEW ANTILUETIC**

Manufactured by J. D. Riedel, of Berlin.

Mergal is Mercuric cholate having the composition (C₂₄ H₃₉ O₅₂) Hg mixed with albuminate of tannin in flexible gelatin capsules. Every Mergal capsule contains $\frac{3}{4}$ grain mercuric cholate and $\frac{1}{2}$ grains albuminum tannicum. Dose—Usually during the first 4 or 5 days one capsule thrice daily, and from the sixth day onwards two capsules thrice daily. According to the tolerance exhibited by the patient and the severity of the symptoms the dosage may be increased to two capsules 4 or 5 times daily. The capsules must be taken immediately after meals.

Mergal is indicated in all forms of syphilis, either of a secondary or tertiary nature. Doubtlessly the best protection against the severe late symptoms is a frequent treatment of the syphilis with Mergal. It is recommended in the so-called para-syphilitic complaints, as tabes and paralysis.

Mergal is a good internal antiluetic, which acts upon the syphilitic virus in a like manner to embrocation and injection treatments. It is well tolerated by the digestive organs, causes no colic or diarrhoea and no renal irritation. It can, therefore, be taken for months without harm. The patient is not weakened by the specific Mergal treatment, but, on the contrary, his strength increases and the symptoms disappear.

The **Mergal** treatment is the simplest, most convenient and least objectionable of all methods of treatment. It does not interfere with the patient's occupation, causes no trouble or pain, and, what is very important, may be carried out quite privately.

RIEDEL'S**Gonosan.**

(A New Specific for Gonorrhœa.)

Gonosan is a yellowish-green, transparent Oil, strongly aromatic and soluble in Spirits of Wine, in Ether, and in Chloroform. It is put up in the form of capsules. Each capsule contains $\frac{1}{2}$ grains of Gonosan of which 80 % is refined oil of Sandal Wood—at least 99 % Purity,—and 20 % A x B Kawa-Kawa.

Dose.—2 capsules 3 to 5 times a day taken with a little warm milk after meals. All alcoholic drinks must be avoided, and the amount of liquid consumed should be reduced to a minimum.

Gonosan relieves the violent discomforts, the burning and itching, the painful erections and the pain during micturition which are the most inevitable accompaniments of acute Gonorrhœa. Even when complicated with Menorrhœa, Gonosan rapidly soothes the nerves of the bladder and overcomes the dysuria.

The astringent and bactericidal power of **Gonosan** prevents the spread of the infection to the posterior parts of the urinary passage, and consequently, complications disappear, and the course of the disease is shortened.

Gonosan, unlike the other balsamic preparations, does not disturb the digestive organs, nor irritate the kidneys. It may, therefore, be taken for weeks without any unpleasant by-effects being experienced.

The internal medication with **Gonosan** in many cases suffices to effect a complete cure, without recourse to injections.

Dr. Boss of Strassburg offers the following explanation as to the efficacy of **Gonosan** :—

“The resinous acids contained in **Gonosan** combine with potassium and sodium found in the body to form a resinous soap, which is soluble in water and excreted in the urine as an acid resin of potassium. The urine becomes strongly acid, and therefore aseptic, before being voided. Numerous tests have shown that the urine does not decompose readily after **Gonosan** has been administered, and, moreover, possesses a well-marked bactericidal power. Observations made by Saalfeld in Piorkowsky's Bacteriological Institute in Berlin have also demonstrated that virulent cultures of gonococci were killed within five minutes when placed in contact with urine derived from a patient who had been taking **Gonosan**. In addition it was also found that such urine, when placed in an incubator, failed to exhibit any signs of decomposition three days later, while in the control specimen it was noted within 24 hours.”

Goods stocked by **SRI KRISHNAN BROS., MADRAS.**

STEARNS' WINE.

An Efficient Tissue Builder, Tonic and Alterative. The value of Stearns' Wine in all conditions requiring a reconstructive tonic is attested by thousands of the most successful physicians.

It is a delicious vinous preparation specially prepared together with iron peptonate. It is free from the nauseating grease of cod liver oil, which is so deleterious to the digestive functions.

Stearns' Wine may be employed with confidence in pulmonary tuberculosis, general debility, malnutrition, convalescence and as a rebuilder generally.

SYNOL SOAP.



This is a liquid antiseptic soap which is used very largely by hospitals and surgeons. It is made of pure material, and is adapted to every conceivable use to which soap can be put. It has been found to be an excellent addition to the bath and toilet of surgical operators, nurses, attendants and patients.

Synol Soap is also excellent for use in the house-hold, and for toilet purposes, as well as in medicine and surgery. Synol Soap may well be substituted for cake soap on the wash and toilet stand, and used as often as may be required without fear of roughening the skin.

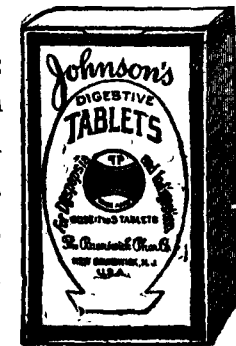
As a cleansing agent Synol Soap is far superior to ordinary soap. By the use of Synol Soap the skin will be rendered soft and pliable, and will be preserved in a way which does not follow the use of other soap.

Synol Soap not only cleanses the skin surface, but exerts a nutritious influence upon the skin, rendering it fair, soft and smooth. Synol Soap will be found most delightful for the toilet and bath, for the complexion, hair, scalp and for all skin diseases.

Synol Soap is put up in glass bottles with a sprinkler top, so that its contents may be used to advantage without waste, and above all kept secure from contamination.

Johnson's Digestive Tablets

dissolve and digest any kind of food mankind can eat. They tone and regulate the stomach and digestive organs, quiet pain and cure dyspepsia. The active agent in Johnson's Digestive Tablets comes from a tropical digesting melon, which can digest any kind of food known to man.



Johnson's Baby Powder

A soothing and delightful toilet article which will keep the skin cool, comfortable and in a healthy condition.

It has been endorsed by the highest medical authority as a perfect powder for mothers, babies and nurses. It is an absorbent, a deodorant and a wonderful healing dressing.

Used after washing, bathing or shaving it softens and preserves the skin and keeps it cool and dry. It prevents chafing, relieves sunburn and prickly heat.

Johnson's Borated Soap should be used in connection with Johnson's Baby Powder. A wholesome cleanser. It is bland and never irritates, and is an excellent Soap for surgeons, nurses, ladies and children's use.

For sale by **SRI KRISHNAN BROS., MADRAS.**

Wholesale Quotations on Application.

The prudent practitioner, being guided by the dictates of experience, relieves himself from disquieting uncertainty of results by safeguarding himself against imposition when prescribing

ERGOAPIOL (Smith)

The widespread employment of the preparation in the treatment of anomalies of the menstrual function rests on the unqualified indorsement of physicians whose superior knowledge of the relative value of agents of this class stands unimpeached.

By virtue of its impressive analgesic and antispasmodic action on the female reproductive system and its property of promoting functional activity of the uterus and its appendages, Ergoapiol (Smith) is of extraordinary service in the treatment of

**AMENORRHEA, DYSMENORRHEA
MENORRHAGIA, METRORRHAGIA
ETC**

ERGOAPIOL (Smith) is supplied only in packages containing twenty capsules. DOSE: One to two capsules three or four times a day. ' ' ' Samples and literature sent on request.

MARTIN H. SMITH COMPANY, New York, N. Y., U. S. A.

THE GALEN MANUFACTURING Co., Ltd.

Wilson St., New Cross, London, S. E.

Sole Makers of

MILNE'S

(The Original)

ANTISEPTIC DRESSINGS.

Everything for Surgery.

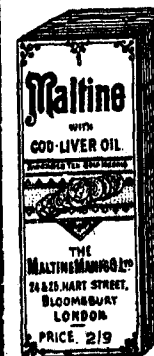
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THE GALEN MANUFACTURING CO., LD.

"MALTINE" WITH COD LIVER OIL.



Cod Liver Oil is indicated in many conditions of malnutrition, wasting, etc., and its value is incontestable. It is of little avail, however, to exhibit this remedy if it cannot be digested: indeed, its ingestion in such cases is of positive harm, overtaxing the digestive functions and causing nausea and eructations. The essential point is to render cod liver oil easily assimilated, so as to bring it within the digestive capacity of the invalid.

This has been done in "Maltine" with Cod Liver Oil.

By means of molecular incorporation with "Maltine" the Cod Liver Oil is deprived of all disagreeable odour and taste, rendered easily digestible, and its valuable properties are made available for the organism.

"Maltine" with Cod Liver Oil promotes nutrition and increases the weight of the body and its power to resist disease.

"Patients unable to tolerate the purest and most carefully prepared Cod Liver Oil can readily digest and assimilate it when combined with Maltine."—*British Medical Journal*.

In prescribing kindly specify **Maltine Company"**

The Maltine Manufacturing Co., Ltd.,

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ANALGESIC. ANTIPYRETIC. ANODYNE.

In the administration of Remedies to relieve **PAIN**, the element of exhilaration should be considered, as many produce such delightful sensations as to make them dangerous to use.

Such is not the case with Antikamnia Tablets.

They are simply pain relievers—not stimulants—not intoxicants. Their use is not followed by depression of the heart.

AK

ANTI-KAMNIA TABLETS. Particularly useful in all Headaches, Neuralgias, Sciatica, Hemiorama, Dysmenorrhoea, for lightning pains, of Locomotor Ataxia, Acute Rheumatism. The antipyretic properties of Antikamnia Tablets are well known. Each tablet contains five grains, and presents the most desirable and convenient form for administration. The usual dose is one or two tablets every 3 or 4 hours.

HAK

ANTI-KAMNIA & HEROIN TABLETS. In relieving Coughs, Bronchitis, Laryngitis, Pneumonia, Whooping-Cough, Phthisis, Asthma, and all Respiratory affections. Dose—One tablet every 2 or 3 hours as indicated.

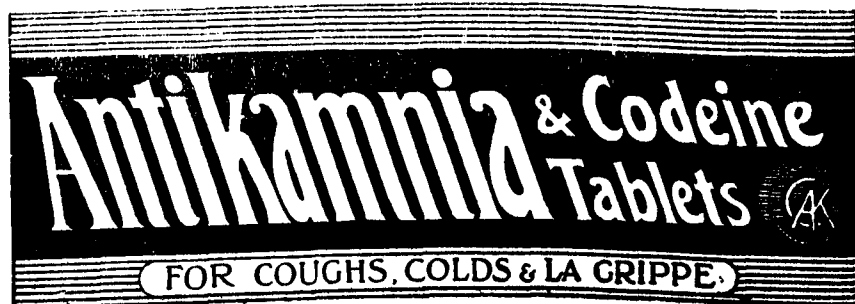
LAKQ

LAXATIVE ANTI-KAMNIA & QUININE TABLETS. A Tonic-Laxative-Analgesic and Antipyretic. This tablet is receiving general recognition as a most reliable remedy for Colds, Coryza, La Grippe, Chills and Fever, Malaria, Biliousness, etc. Dose—Two tablets every 3 hours as directed.

Antikamnia and its combinations in 1 oz. packages only.

The Antikamnia Chemical Company,

46, HOLBORN VIADUCT, LONDON, E. C.



N. POWELL & CO.

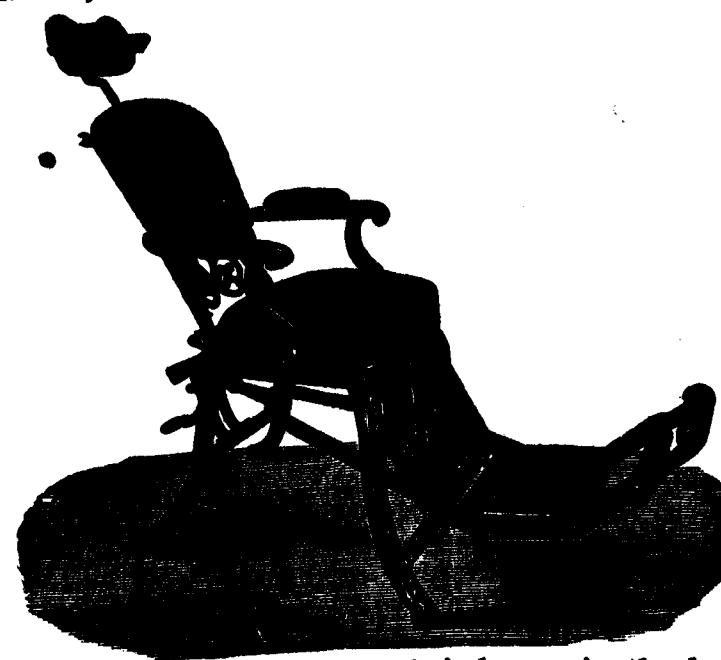
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**SURGICAL INSTRUMENT MANUFACTURERS
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TO HIS EXCELLENCY THE GOVERNOR OF BOMBAY.
**The most Complete and Largest Wholesale
Dental Depot in India.**

N. POWELL & Co. claim theirs is the leading House in India so far as the Dental and Surgical Departments are concerned, and to meet the requirements of their constituents, they have opened an extensive Aseptic Surgical and Dental Show Room in Hornby Road, Fort.



N. POWELL & Co., carry a very large stock of Ash's Mineral Teeth, Dental Chairs, Dental Engines, Cements C. A. S. Burs for Hand Engine use, Lathe Hand and Foot, Plaster of Paris, Ash's Plastic Filling Instruments, Rubber, Sealers and various other kinds of requirements for this line.

DENTISTS will find their house is the largest one in India, Burma and Ceylon to meet their requirements in Dental lines.

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NUTROLACTIS

A USEFUL GALACTAGOGUE

For Nursing Mothers.

Nourishes the Child. Invigorates the Mother.

Fluid Extract of the plants Galega Vera.

Approved by the Academy of Medicine, Paris.

Properties.

When the milk of a nursing mother is scanty, although the breasts be almost dry, this remedy will, in a few days, so increase the quantity that there will be enough to nourish any infant.

If the quantity of the mother's milk be poor, lacking in nutritive elements, this remedy will greatly improve the quality and maintain both quality and quantity until the end of normal lactation.

If the quantity of milk be sufficient, but the mother debilitated by nursing, Nutrolactis will quickly increase her strength, removing the debility caused by nursing, and moreover the quality of the milk will be improved.

Nutrolactis acts chiefly by strengthening and building up the mother's system; it does not force mothers to yield good milk copiously but it enables them to do so.

What it does.

1. Increases the quantity of the mother's milk.
2. Improves its quality.
3. Aids the assimilation of food by the mother.
4. Maintains strength.
5. Nourishes the Infant in the only Natural way.
6. Prevents many disorders of the Infant's Digestion.

When it should be taken.

1. When her milk is scanty.
2. When it is poor and watery.
3. When the mother is debilitated by nursing.

Nutrolactis positively restores the mother's strength besides perfectly nourishing the infant.

Nutrolactis contains nothing injurious to mother or child. Mothers need not hesitate to take Nutrolactis. It is approved and endorsed by the Medical Profession generally.

MANUFACTURED SOLELY BY

THE NUTROLACTIS COMPANY,
NEW YORK, U. S. A.

London, Vienna, Berlin, Paris, Geneva, Brussels and
PARKEWOOD, N. C.

SOLE EXPORT AGENTS:

Muller, Maclean & Co., Messrs. Sri Krishnan Bros.,
11, Broadway, N.Y. MADRAS.

"Nutrolactis just unpacked."

'Panopepton.'

PANOPEPTON presents the entire substance of prime lean beef and best wheat flour in a perfectly soluble, diffusible, and absorbable form. It is at once a grateful stimulant and food.

For an adult, the usual portion should be a dessertspoonful to a tablespoonful several times a day and at bedtime.

Supplied to the Medical Profession in 6 oz. and 12 oz. bottles.

'Pepsencia.'

PEPSENCIA is an ever-ready digestive fluid possessing remarkable peptic and rennet activity. It contains pure pepsin, the vitality of which is unimpaired by chemical action or manipulation, and is obtained by direct solution from the secreting glands of the gastric mucous membrane, every care being exercised to preserve its full physiological activity.

The usual dose is a teaspoonful before or after meals in all cases where pepsin is indicated.

Supplied to the Medical Profession in 4 oz. and 8 oz. bottles.

'Pepule' Pepsin 3 grs.

THIS portable and exact dosage of Pepsin affords a convenient means of exhibiting this digestive agent.

Supplied in bottles containing 25 and 100.

'Zymine' Peptonising Tubes

For the Preparation of Peptonised Milk and other
Predigested food for the Sick.

Supplied in boxes containing 1 dozen tubes.

Originated and Manufactured by

Fairchild Bros. & Foster,

NEW YORK.

Agents for Europe, Asia, Africa,
and Australasia:

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LONDON.

THE value of Fellows' Syrup in the debilitated conditions following Cholera, Malaria, Typhoid, and other fevers, is most marked; and in the treatment of Anæmia, Neurasthenia, Bronchitis, Influenza, Pulmonary Tuberculosis, and Wasting Diseases of Childhood, and during Convalescence from Exhausting Diseases,

THE PHYSICIAN OF MANY YEARS' EXPERIENCE

Knows that, to Obtain Immediate Results, there is no Remedy that Possesses the Power to Alter Disordered Functions, like Fellows' Syrup of Hypophosphites.

Fellows' Syrup of Hypophosphites

Many a Text-book on Respiratory Diseases Specifically Mentions this Preparation as Being of Sterling Worth.

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk, but is dispensed in Bottles containing 8 oz. and 15 oz. This Preparation may be obtained of all Chemists and Pharmacists throughout the World.

TRY IT AND PROVE THESE FACTS

LISTERINE.

The Standard American Antiseptic for internal and external use.

Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition, Portland, 1905; Awarded Gold Medal (Highest Award) Louisiana Purchase Exposition, St. Louis, 1904; Awarded Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris.

The word Listerine assures to the Medical Profession a non-poisonous antiseptic of well proven efficacy; uniform and definite in preparation, and having a wide field of usefulness.

Listerine represents the maximum of antiseptic strength in the relation that it is the least harmful to the human organism in the quantity required to produce the desired result; as such, it is generally accepted as the standard antiseptic preparation for general use, especially for those purposes where a poisonous or corrosive disinfectant cannot be used with safety. It has won the confidence of medical men by reason of the standard of excellence (both as regards antiseptic strength and pharmaceutical elegance), which has been so strictly observed in its manufacture during the many years it has been at their command.

The success of Listerine is based upon merit, i. e., the best advertisement of Listerine is—Listerine.

**LAMBERT PHARMACAL COMPANY,
St. Louis, U. S. A.**

In combating serious illness, it is doubly important to be assured that the patient is supplied with genuine Listerine, as the substitutes sometimes offered by the trade are generally of undetermined antiseptic strength, and too often worthless for the purpose for which they are required.

Original Articles

*X-RAY DERMATITIS, ITS PREVENTION AND TREATMENT.

BY

H. EVELYN JONES, M. R. C. S. (ENG). L. R. C. P. (LOND.).

*Late Clinical Assistant to the Skin, Light and X-Ray Departments.
London Hospital*

(CONTINUED FROM PAGE 305, VOL. VI. "THE ANTISEPTIC.")



T has long been regarded as a well-established fact that every therapeutic agent which is capable of producing good results in properly selected cases, will, if improperly used, or used in unsuitable cases, also produce harmful ones.

Nor is this the exception in the therapeutic use of the X-rays, the effects of which, both good and bad, have only lately been at all well understood by a knowledge of the properties of those rays and by experience in the use of them.

At the London Hospital the X-rays were used both therapeutically and in radiography as early as anywhere in England, and consequently we have been able to observe several unfortunate cases of both the acute and chronic affections, producing the so called X-ray dermatitis, but by our ever-increasing knowledge on the subject we are now fairly confident of being able to prevent any ill-effects on the skin of the future workers in X-rays. It is my intention in this paper to first of all give a brief summary of the disease, with the complete notes of two hitherto unpublished cases; then to briefly describe the various affections which can be produced by the rays, and finally to give all the instructions possible for the guidance of operators, both for the prevention of such affections, and the treatment of such when produced.

* Specially contributed to "The Antiseptic."



FIG. 1-

Showing the Early Stage of X-ray Dermatitis with affections of the nails.



FIG. 2-

Illustrating the progressive bone changes in a case of Chronic X-ray dermatitis. The terminal two phalanges had already been amputated.

A.R.-This is a Radiographic print of the same case as Fig. (1) taken 1 year later.



FIG. 3-

Showing the stage of Case (1) immediately before the terminal phalanx of the middle finger was amputated.

Case 1.

E. E. W., Aet 32. Commenced working as an X-ray operator in the early part of 1898.

Eighteen months afterwards, he first noticed something peculiar arising in connection with the skin of his hands. There was at that time a general redness like a dull erythema, and some tenderness, especially on the dorsum of the hands. The nails also were becoming striated. This striation increased, the nails became ridged, and a kind of keratosis of the matrix appeared, raising the nail from its bed, sometimes causing hæmorrhage under the nail. About the same time there was a thickening and splitting of the skin over the knuckle region.

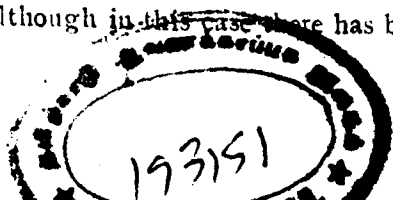
These conditions gradually increased up to January 1901. Suppuration then appeared under the nail, necessitating its removal, and on the subsequent nail appearing the process was repeated in 1902.

Boric and Lysol fomentations were applied to the many ulcerations on the edges of the fingers after the removal of the nails. At the latter end of 1902 the terminal phalanx of the left middle finger was removed on account of the appearance of sloughing. This was followed some months later by the removal of the second phalanx of the same finger. The bone atrophy continuing, the proximal phalanx was amputated in 1906. The remaining lesions on the dorsum consisted of general dryness of the skin, almost amounting to a keratosis, and evidently due to an atrophy of the sweat glands (proved by microscopical examination of sections through the skin), telangiectases, warts and numerous ulcerations. The condition remains about the same at the present time, but fortunately nothing in the shape of epitheliomata have developed. The palms of the hands, singularly enough, are practically unaffected, and the patient continues to work with the rays. Fomentations and many ointments have been applied, and though they might improve for a time, no permanent benefit has been maintained.

(*N. B.* The three accompanying illustrations show the case in its earlier stages and in its more advanced state, together with the bone atrophy which is typical of the disease).

Case 2.

R. G. B., Aet 27. Commenced working with the X-rays in 1900. Twelve to eighteen months later he noticed swelling of the fingers, followed by a general erythema and tenderness. Striation of the nails followed, although in this case there has been very little splitting.



Extreme dryness of the skin, warts, telangiectases and ulcerations have all appeared, but no epitheliomata or enlarged axillary or anticubital glands.

In 1907 several small pigmented moles appeared, and some of these have increased in size. Some have been removed and subjected to microscopical examination, but were found not to be of the nature of melanotic growth. There have been general pigmentary changes in the skin of the face and hands, but no bone changes.

The condition in both cases is rapidly advancing and resists all treatment, except in Case 2 where the warty growths entirely disappeared on being exposed to a full Sab B-dose of the rays themselves.

X-ray dermatitis may be divided into two classes, acute and chronic, each of which may be subdivided into its stages as follows:—

- A. ACUTE. (1) Shedding of the hair.
- (2) Erythema (often followed by a fine brawny desquamation)
- (3) Vesication with telangiectases.
- (4) Superficial ulceration.
- (5) Deep ulceration.
- (6) Necrosis and sloughing of parts.
- B. CHRONIC. (1) Ridging of the nails and general dryness of the skin
- (2) Onychia and ulceration.
- (3) Warts, pigmented moles, telangiectases.
- (4) Epithelioma and enlarged glands.
- (5) Bone atrophy.

A general effect, viz, "azoospermia" is undoubtedly produced in X-ray operators, but impotence fortunately is not produced.

Acute X-ray Dermatitis.—This form of the disease arises as the result of a too prolonged or too frequently repeated exposures within a limited period of time, and it is possible, by giving a prolonged exposure at a short distance from the tube, to produce an action which will even result in death and sloughing of the parts. As I have pointed out in a previous paper, epilation of the scalp can be successfully obtained without producing an erythema of the scalp, yet, at the same time, this same dose, if applied to the ordinary skin of some patients may produce a severe erythema, and in others no marked reaction at all. Consequently the idiosyncrasy of the patient certainly plays a part in the production of the dermatitis, but by the methods previously described and in the doses suggested, may in the majority of instances be neglected.

The severity of the acute symptoms will depend on :—

- (1) The distance of the working tube from the skin.
- (2) The length and frequency of the exposures.
- (3) The general health of the patient and condition of the tube, *i.e.* whether hard or soft).
- (4) Efficient protection of surrounding parts.

The first symptoms are tingling, itching, pigmentation, and shedding of the hair, together with some swelling and a sharp burning pain. In a few days the burn makes its appearance, the parts become more inflamed and the pain increases. This inflammation may go on to the sloughing of parts and the production of an ulcer. The ulcer may be quite superficial and involving only a portion of the true skin, or it may be deeper, involving the whole thickness of the skin and oftentimes the tissues underlying it.

Once the whole skin has given way, the ulcer is extremely difficult to heal, and in many cases will assume a chronic form, its surface becoming covered with an adherent tough wash-leather deposit, which is not only almost impossible to remove by simple means, but also produces intense pain when such attempt at removal is made.

This leathery deposit is sometimes seen on a rodent ulcer if too strong a dose has been given to the surface of the ulcer, and, should such be the case, it is far better to give a general anæsthetic immediately and thoroughly scrape the deposit off, for unless this is done the ulcer seldom, if ever, heals. At the present time, and with the present knowledge, acute dermatitis is practically never known to occur during the process of radiography, and it would seldom, if ever, occur during the therapeutic action of the rays if the methods of dosage I have previously described, and the methods of protection I shall describe later, be adopted. In many thousands of cases treated therapeutically, I have seen but one or two acute burns in the last three or four years, and not a single one produced by the X-rays when used as a help in diagnosis, either by screening or by radiography.

Prevention and Treatment of Acute Dermatitis.—If a coil giving at least a ten inch spark be used in conjunction with an efficient interruptor, and the tube (soft) never placed nearer than twelve inches from the patient's skin, there is, practically speaking, no chance of causing an acute dermatitis by taking a radiograph.

For the simple erythema with symptoms of tingling and itching, the most effective application to apply to the part is evaporating lead lotion. Should, however, an X-ray burn be produced, such should be treated on

the lines of ordinary burns of the second and third degrees, but it must be clearly understood that such are far more painful than ordinary scalds and burns, and are much more difficult and take longer to heal. They should be protected from the air as early as possible and great care must be taken to keep them aseptic. An excellent dressing is an ointment advocated by Sabouraud,

Pot. Chlor.	..	one part.
Zinci Oxidi.	..	ten parts.
Adeps Benzoati.	..	60 parts.

Boracic and Mercurials do not give good effects, unless used with a view of keeping up irritation.

Other excellent prescriptions are the following :—

- (1) Adep. Lanae. ℥iiss.
Paraff. molle Flav. ℥lss.
Hazaline ℥vi.
- (2) Zinci Carbonatis ... grs. xx.
Acid Salicyl (in powder) grains 8.
Hydrous Wool Fat ℥ii.
Soft Yellow Paraffin ad ℥i

In those cases in which the ulcers have the appearance of chronicity and in which the tough wash-leather deposit has formed on their bases, nothing is at all effective except thoroughly scraping this deposit away under an anæsthetic, and then protecting the resulting ulcer by some antiseptic preparation like those mentioned above. The best way however is to avoid such states, and to give a smaller dose until the patient's idiosyncrasy has been well established, and then the full doses can be given with impunity.

Chronic X-ray Dermatitis.—This occurs only in operators who are constantly exposed to the rays, and who take no precautions to protect themselves from their influences. Most cases are found amongst the early workers, and now it may reasonably be said that, providing suitable precautions be taken no such trouble is likely to arise in future experimenters. As a rule it commences on the dorsum of the hands as a general erythema, particularly around the roots of the nails. This erythema increases and the nails become striated transversely and longitudinally. They become brittle, and the matrix, exhibiting a tendency towards thickening, raises the nail from its bed. The erythema becomes more general, and warty growths with telangiectases appear on the hand, rapidly increasing in size and number. They are especially prone to appear over the knuckles and bony prominences. The skin loses its elasticity

and cracks on the slightest provocation, forming small superficial ulcerations and so exposing the nerve-endings, not only causing extreme pain but are very difficult, if not impossible, to heal. Suppuration appears round the nail-bed, finally causing the nail to drop off, provided it has not already been removed. A fresh nail sometimes grows, and the process may be repeated several times. The bases of the warts may also become inflamed, and the warts drop off, leaving similar ulcerations to those described above. Other warts may increase in size and become histologically and sometimes clinically, epitheliomatous, the axillary glands at the same time becoming infected with secondary deposits.

Loss of power in the arm muscles has also been described in addition to the azoosperma usually, and the general pigmentation of the body sometimes seen. Pain of an almost indescribable character is felt and oftentimes appears to be deep-seated, as if arising from the bone, and, by skiagrams of the bones taken at various periods of time during the course of the disease, bone atrophy can be seen to be going on. An excellent illustration of this is seen in Fig. 2.

Treatment of Chronic X-ray Dermatitis.—This unfortunately is far from successful, and when once the disease is well established it will gradually progress, notwithstanding all methods of treatment and all precautionary measures. Absolute antiseptic principles must be followed and all ulcerations kept free from air. Lysol or Boracic fomentations often clean up and relieve the pain of the ulcerations, and soothing ointments such as the Hazeline Cream or Sabouraud's Ointment previously mentioned, will sometimes promote healing.

Should suppuration occur round the nail-bed, the nail should be removed, and, of course, epithelioma must be dealt with on surgical lines, frequently involving amputation and removal of axillary glands. In Case 2 the patient caused many of his own small warts to disappear by exposing them to Sab B doses of X-rays in the same way as I described in the treatment of ordinary warts, and, though it seems paradoxical to state, some of the accompaniments of X-ray dermatitis may even be cured by the rays themselves which caused the condition.

Prevention of Chronic X-ray Dermatitis.—Although the most elaborate devices will not prevent the disease progressing in those already affected, fairly simple means will prevent new operators and those not already suffering from the condition from any chance of such affection.

The tube should be surrounded by a lead-glass shield (allowing only about 15% of the rays to penetrate) with an opening at one point which

will allow the full effect of the rays to penetrate on the area under treatment. The shield should be such as to allow the fixation of lead-glass extension tubes for localising action.

The whole coil, tube holder with tube and shield attached, should be enclosed in a lead-glass cabinet with switch-board outside, and the door of the cabinet should be fitted with an automatic switch so that the mere opening of the door will shut off the current. By these means any energetic attempt on the part of the operator to alter the adjustment of the tube, or change the position of the patient with the tube still in action, must, of necessity, be frustrated. The operator should wear opaque gloves and apron the whole time the tube is in operation, and, should, on no account, allow any one to look through any portion of his body with the fluorescent screen. An additional and at the same time very valuable precaution is that the operator should always wear glasses in order to prevent the slightest chance of conjunctivitis. All the time the tube is working he should be as far away from its action as possible and should always avoid the area of discharge like he would, the plague.

In conclusion I must render my best thanks to Dr. J. H. Sequeira (Physician in charge of the Skin and Light Department, London Hospital) for permission to use all the cases in this series of articles, and to Mr. E. E. Wilson for his kindness in preparing the photographs of the cases.

*PYELITIS.

BY

J. BERNARD DAWSON M. B., B. S. (LOND.) F. R. C. S. (ENG.).

A disease so intermingled with other renal mischief, that its existence as a separate entity has been questioned. Pyonephrosis and Pyelonephritis both include the term Pyelitis, but, nevertheless, the last condition does undoubtedly exist as an inflammation of the renal pelvis *per se*.

It is not the purpose of this paper to discuss all the underlying causes of pyelitis, for it depends too often upon serious pathological conditions, each of which afford material for a treatise.

It is rather the writer's object to mention these briefly, and to devote more space to the discussion of the so-called idiopathic pyelitis—that is the pyelitis which has no obvious causes.

It is not easy to obtain reliable figures, but the following classification is probably arranged in descending order of frequency.

* Specially contributed to *The Antiseptic*.

A. *The Pyelitis which is due to back pressure* and infection dependant upon some interference with the bladder function. This group divides itself into two sub-headings :—

1. Those cases due to obstruction of outflow from the bladder, such as stricture of the urethra and enlargement of the prostate.

2. Those cases where the distension of the bladder is due to paralysis of the detrusor muscles, as in cases of transverse myelitis or fracture dislocation of the spine in the lumbar region.

B. *Calculous Pyelitis*.—In these cases the presence of a stone produces mechanical injury to the living epithelium of the renal pelvis. The infecting organism is commonly the *bacillus coli communis* which finds its way to the kidney by migration from the adjoining gut. Although not strictly due to the presence of a stone, under this heading should come those cases of pyelitis due to passage of uric acid crystals by patients of a lithæmic diathesis.

C. *Tuberculous Pyelitis*.—Must be sub-divided into 3 classes.

1. Those cases in which the local disease is part of a general infection of the body by miliary tubercle.

2. Those cases where the pelvis is infected by direct lymphatic spread from the bladder. In such a case the pelvis is necessarily affected before the kidney proper. There is no doubt that this spread of infection against the direction of the flow of urine does take place. A deposit of tubercle originally in the epididymis may be the source of infection of the whole urine-genital tract.

3. Those cases where the tubercular deposit is primary in the renal parenchyma, in these the pelvis is affected late and as a secondary event to the tubercular nephritis.

D. *Certain cases of renal mobility*—in which, where the range of movement is sufficient to produce kinking of the ureter and recurrent obstruction of flow, an inflammation may be set up. As in calculus, this is due to mechanical injury followed by infection from the urine or the neighbouring bowel. These cases are usually associated with the symptom-complex known as "Dietl's Crisis" which is due in its turn to the kinking of the ureter or to partial rotation of the kidney. This form of pyelitis may initiate a true nephritis, which produces the unilateral albuminuria found in certain cases of marked renal mobility.

E. *Malignant Pyelitis*—is mentioned only for the sake of completeness and is, of course, associated with malignant growths of the kidney.

F. *Pyelitis due to the ingestion of irritating drugs*.—For example Cantharides, Turpentine and sometimes Copaiba, Cubebs, Santal wood, and Boric Acid.

G. *Pyelitis due to foreign bodies or parasites* of the former bullets and migrating needles constitute the bulk; whilst of the latter Brinarzia Lœmatobia is better known in tropical countries than in England.

H. *Pyelitis due to cold*.—In all the foregoing, there has been an obvious and renal underlying cause for the pyelitis, but there are still left a large group of cases wherein no cause can be detected. More for convenience than accuracy these have been attributed to cold. Before discussing this important neglected group in detail, it will be as well to describe the symptoms common to all cases of pyelitis proper.

These are :—

1. *Elevation of Temperature*.—This may vary from the severe hyperpyrexia of acute infective pyelitis (*vide infra*) to the technical elevation of the tubercular or simple chronic form.

2. *Renal Tenderness*.—Elicited upon palpation, together with rigidity of the abdominal muscles over the affected organ.

3. *Increased frequency of Micturition*.—This is a constant sign of some importance; the frequency being both diurnal and nocturnal. But it should be borne in mind that it is a symptom common to all bladder and kidney mischief.

4. *Discharge of Pus*.—In an acid urine. The discharge may be copious and continuous in chronic forms or slight and intermittent in acute forms, the intermissions being due to inflammatory swelling severe enough to cause obstruction.

The reaction of the urine may be modified and even rendered alkaline in those cases where much cystitis is present. Blood is seldom seen except in such cases as are caused by calculus. Albumin in amount corresponding to the pus is present and rarely in old-standing cases albumin due to a true interstitial nephritis may be present, associated with renal casts.

Turning now to the catarrhal pyelitis; this form of the disease can be classified under the following heads.

1. *The acute Injection*.—Commonly a sequel to unusual exposure to cold and damp, this usually begins with a rigor or convulsion, depending upon the age of the patient.

The temperature rises rapidly to 104° or even 105°. This fever is intermittent, the excursion being 4 or 5 degrees.

There is severe Malaise, copious sweating and lumbar pain. Abdominal pain is rare, but sometimes present. In young people there may be retention of urine.

The urine itself may not manifest any change for 48 hours, and ere the diagnosis is confirmed, the symptoms may be subsiding. The urine will be found to contain pus and bacteria, desquamated epithelial cells from the urinary passages are also to be found, while uric acid and calcium oxalate crystals may be present. As stated above casts of the renal tribules are not found unless there be some accompanying affection of the renal parenchyma.

The treatment of this condition is upon expectant lines. The patient is strictly confined to bed upon a rigid milk diet. The bowels are regulated and the kidneys relieved by full saline aperients, urotropine in 5 grain doses is given three times a day; if there be severe pain or spasm half a drachm of tincture of hyoscyamus may be added to the mixture.

Fomentations may be applied to the flank to relieve pain, and leeches or cupping may be resorted to in severe cases. The prognosis is good both as regards life and permanent recovery. Small quantities of pus may be detected in the urine for some weeks after the onset and no case can be declared cured until all trace of pus has disappeared. The acute inflammation may settle down into a chronic one.

2. *The Chronic Infection.*

(a) *The continuous Type.*—This form of the disease is difficult to detect for its symptoms are similar to those of many of the febricula of children. There is usually an irregular intermittent fever being sometimes only an evening elevation of 1° to 2° .

There is loss of weight and appetite, together with a general feeling of illness. There may be some anorexia and vomiting.

The symptoms are commonly attributed to "biliousness."

Occasionally there is some discomfort in the kidney region which affords a clue to the problem, but more often urine is examined after much delay over erroneous diagnosis. It is well to remember that much discredit may be avoided if the urine is examined early in the cases of fever with malaise occurring in children.

The axiom that the longer the course the longer the cure, of any disease, holds good in chronic infective pyelitis.

The treatment is as follows:—

The child should be warmly clad, but need not be confined to bed. Instructions should be given to avoid cold and sudden changes of temperature. The diet should be liberal but vegetarian, a little fish being allowed for variety.

The patient must take urotropine regularly for some months or until the pus has entirely disappeared from the urine.

(b) *The Cyclic form.*—In this Type the symptoms are the same as in the last but take upon themselves a periodicity, that is to say, the pyelitis is intermittent.

The child is periodically taken ill with the symptoms detailed above. They are often attributed to stomachic derangement or even described as cyclic vomiting, a term which is merely a cloak for ignorance.

An examination of the urine during and after an attack will reveal the real condition of affairs.

The treatment is essentially similar to that for the continuous form.

These varieties of infective pyelitis are found at all ages but they are far and away the most common in childhood; in fact they may be regarded as rare after adult life is reached.

Barnard and Henry Fenwick have both described the condition of acute ascending infection of the Kidneys, but in this condition they consider that the urinary tract is infected throughout.

The prolonged discomfort which pyelitis can produce in children, the ease with which it can be remedied and cured should convince all of the importance of urinary examination in all cases of obscure febrile symptoms.

It is so easy to so arrive at a certain diagnosis, whilst otherwise it is equally easy to damage a reputation.

TRAUMATIC OR SURGICAL FEVER.*

BY

SURGEON-MAJOR R. E. WRAFTER, B. M. S. (RETD.)

Traumatic fever is a symptom of inflammation, in some degree, rarely absent after a wound or injury of any gravity; and its more common form is known as "traumatic" or "simple inflammatory" fever. It is more likely to be slight in its manifestations, or even to be entirely

* Specially contributed to *The Antiseptic*.

absent, after simple and uncomplicated injuries, such for example, as an incised wound which is uniting promptly by the first intention, after a contused wound or a partial crushing, traumatic fever would be more certain to occur and to be well marked, and to merge, possibly, into a graver form of surgical fever. As a rule, traumatic fever makes its first appearance in the evening of the day on which a serious injury, say a compound fracture, has been received, following the reaction from the collapse or shock of injury which takes place more or less slowly according to the gravity of the case. If a wound involve perfectly healthy tissue, and has been promptly and properly cured for, or if it be a subcutaneous lesion, such as a simple fracture, febrile symptoms may not show themselves for twenty-four hours after, or even a longer time may elapse, or they may, possibly, not appear at all. The nature of such fever invariably varies with the degree of injury, the particular part affected, and the constitution and habits of the patient. Some amount of traumatic fever generally, but by no means always, follow after severe injuries and grave operations, and its persistence beyond a given period is looked upon as a serious evil. The aspect of a patient on the invasion of traumatic or surgical fever becomes slightly altered; his countenance is somewhat pinched and anxious; he is a little restless, apt to resent disturbance, and awakes frequently from his sleep. He is conscious of feeling fatigued, hot, and thirsty, and has usually a dry mouth. The tongue gradually becomes coated, and there is little or no desire for food, the urine is scanty and deeper in colour. The pulse is more frequent than it should be, and the clinical thermometer, under the tongue, or in the arm-pit, shows a decided increase of temperature. Although the patient may feel slightly chilly on exposure, simple traumatic fever is not usually ushered in by a rigor, and the temperature rarely exceeds 102.5° Fahr. The fever reaches its climax in about thirty-six hours; it may continue, with a slight remission in the morning and a corresponding increase towards evening, for two, three or four days. About this time the fever begins to decline, the temperature diminishing, and the pulse gradually returning to the normal standard; so that, at the end of a week, the febrile movement has ceased. Not infrequently, when suppuration takes place in a wound at the usual period, say from the third to the fifth day, the traumatic fever declines coincidently with the appearance of pus and the diminution of the local swelling and tension. This is the typical course of traumatic or inflammatory fever. If it does not disappear promptly within this limit of time, there is reason to suspect deeper suppuration, or some other complication of the local inflammation, to account for the continuance of the febrile symptoms, which can no longer be

ascribed to simple traumatic fever, but threaten to assume the character of septicæmia, pyæmia, or hectic, which usually follows surgical lesions of a severe nature. In simple traumatic and suppurative fever, which does not pass the usual limits, we need generally use nothing but cooling drinks. Simple diet, and a little morphine solution at night to secure good rest. If the fever lasts longer and assumes a peculiar character, we may resort to febrifuges. Digitalis is of little use on account of its uncertain action. Veratrum but seldom given internally, reduces the temperature, but appears to do little good in toxic traumatic fevers. Aconite was formerly highly recommended, but Dr. Billroth of Vienna has seen no good from its use. Quinine he has found the most efficacious, especially in intermittent suppurative (hectic) fever, particularly in combination with opium. He gives grs. 6 to grs. 16. in the course of the afternoon, followed at night by gr. 1 of opium, of remedies which directly oppose the toxic condition of the blood he has seen no effect from the mineral acids, the sulphites, and chlorine water. Nor has the administration of purgatives or emetics proved of avail. When the skin is dry, we can occasionally do good by inducing profuse perspiration. This may be done by a warm bath, lasting for half an hour or so and then wrapping in blankets. He has seen patients so low with septicæmia that they were pronounced incurable, saved by this remedy. In former times, before a correct knowledge of the functions of the body had been acquired, an idea was entertained that not only remedies but nourishment might be conveyed into the system by the warm bath, copious diuresis does not seem much to affect the general condition. In the surgical fever of vigorous patients, where after the bowels have been freely evacuated, and the circulation had become quiet and the temperature fallen, an opiate may be given, but if it is desirable to exhibit the opiate before the pyrexia has abated, it should be given in combination with such medicines as tend to increase the activity of kidneys and skin. Of course, every local means besides, including the various Antiseptic dressings, may be used which can limit the inflammation, and bring about a healthy condition of the wound which is the cause of the fever. We have endeavoured to describe extreme cases as types of the two forms of traumatic fever, but in practice they are often found more or less blended.

Our Contemporaries.

MEDICINE.

Spontaneous Evacuation of Ascites by the Bowel.

Dresch (*Gaz. Med. de Paris*, Apr. 1, p. 6).—A man, aged 35, of alcoholic habits, suffered from cirrhosis of the liver with ascites. Paracentesis was performed and 18 litres of fluid were withdrawn, but the patient became so collapsed that it was decided not to repeat the operation till urgent symptoms appeared. After some months a second tapping became necessary and on this occasion also the patient's state after the operation caused some alarm. Two months later the fluid had again accumulated and a further tapping was contemplated when the patient was seized with severe colicky pain in the abdomen, and a few minutes later he passed per anum about 20 litres of liquid, the abdomen becoming empty again with signs of severe collapse and coldness of the surface. The liquid evacuated was ascitic fluid, scarcely soiled by its passage through the intestine. Perforation of the bowel had evidently taken place though its site could not be located. The ascites did not recur; stools containing serous fluid were passed from time to time in decreasing quantities till they entirely ceased. The patient had no further ascites in the following 2 years but since then the writer had lost sight of him.—*The Medical Review*.

Cancer of the Stomach in a Boy.

R. B. Ness, M. B., and J. H. Teacher, M. D. (*British Jour. of Children's Diseases*, Dec., p. 515).—A boy, aged 14 years and 5 months, was admitted to hospital with intense jaundice on Aug. 27, 1906. For 2 years he had suffered from paroxysms of abdominal pain at long intervals, sometimes of 2 or 3 months. In the last 8 months they had become more frequent and more severe. About the middle of May he noticed a small hard lump at the umbilicus. It was not painful, but the overlying skin was red. Two months later a little pus escaped from it. Thereafter there was occasionally a little discharge. The jaundice began in the latter part of June. It became more intense until the middle of July, after which it varied in degree. With the onset of the jaundice the stools became light grey. Three days before admission he vomited a breakfast-

cupful of blackish material streaked with bright red blood while fasting. His family history was unimportant.

He was poorly nourished, anæmic, and intensely jaundicated. At times he was seized with pain, when he preferred the dorsal decubitus position. On Sept. 10 he vomited brownish matter which gave the tests for blood. The stools were grey and very offensive. Once a black stool was passed, evidently due to hæmorrhage high in the alimentary canal. The umbilical tumour was of the size of a cherry, and covered with thin red skin, and a greenish-yellow crust; it was not fixed to the deeper structure. Deep pressure in the epigastrium caused much pain, but no tumour could be felt. The liver and spleen did not show any enlargement. Three weeks after admission a small hard lump was felt in the abdomen, immediately above and to the left of the umbilicus; it was deeply fixed. The abdomen was more distended and contained fluid.

The jaundice and ascites indicated pressure on the bile-ducts and portal vein. In an adult these, with the other symptoms, would have suggested malignant disease. The umbilical tumour was also in favour of this, but the occurrence of tuberculosis in this position in young subjects suggested tuberculous peritonitis with involvement of retroperitoneal glands and pressure symptoms. But the umbilical tumour showed no tendency to break down as in tuberculosis. As the patient was getting worse, exploratory laparotomy was performed. Five or 6 pints of fluid were removed. Tumours were found within the abdomen, and one was removed for microscopical examination. An anastomosis was made between the gall-bladder, which was distended, and the jejunum. Death occurred on the 29th.

NECROPSY.—The abdominal organs were glued together by fibrinous exudation. The under surface of the diaphragm was covered with a thick yellow layer like wash-leather, in which were many small nodules. On the liver and spleen were numerous nodules. A large mass surrounded the neck of the gall-bladder, and hepatic ducts and occluded them. Microscopic examination showed that the masses were cancerous. The stomach contained dark-brown material. On the lesser curvature near the pylorus was a circular ulcer 3 mm. in diameter. It appeared to be a simple ulcer, but there was unusual thickening of its margins, and of the stomach around. White hard masses extended from this area to the liver, and the gastro-colic omentum was full of nodules. The gastric tumour was a scirrhus cancer.

The long history of pain is important, as the gastric ulcer may have been the origin of the malignant disease. Most cases of cancer

of the stomach occur after 40. In 3,257 cases of cancer of the stomach collected by Osler and Macrae, 2.5 per cent. of the patients were under 30. Below the age of 20 the disease was very rare; they could collect only 6 cases in the first decade of life, and 13 in the second. *The Medical Review.*

Dilatation of the Right Heart in Athletes.

W. Collier, M. D., F.R.C.P. (*Clinical Journal*, Mar. 24, p. 378).—The writer has often seen dilatation of the right heart in athletes. His attention was called to it 20 years ago by the following case. A freshman came to Oxford from Eton where he had been looked upon as a crack mile runner. When he started practising he was making seconds worse time than at Eton. Examination in the vertical and in the horizontal position showed nothing abnormal. But when he was made to run quickly round the room twice or thrice, epigastric pulsation was much more marked and continuous than one would have expected, and he developed a bruit, running up the left side of the sternum. This murmur was not then described in the books. The writer sent the patient to Sir William Broadbent, who said that the murmur was one with which he was familiar, and was produced in the pulmonary artery, the conus arteriosus, by temporary dilatation of the right ventricle and conus. The conus was in contact with the chest wall, instead of having a layer of lung between, and during systole it was slightly flattened against the wall of the chest, and that led to an eddy in the current, and hence the murmur.

A striking example occurred in one of the most famous 3 mile runners at Oxford. As a freshman he ran in the University sports and did the record time for the 3 miles. In the second year he beat this record. In the third year he developed the murmur in question. It was so slight and he was running so easily that the writer did not like to stop him. In the Inter. University 3 mile race of that year he ran away from all his competitors, and ran for time. When he got into the last lap he faltered and trotted in, and afterwards was helped to the pavilion, where for nearly three-quarters of an hour he lay almost unconscious. The next year he was anxious to run again, but he developed the murmur in the writer's room. Sir William Broadbent agreed with the writer that he ought not to race. Some years afterwards he fought in the Boer War. One day his company was surrounded; he outran the Boers to his camp, and collapsed in a similar condition as before.

A practitioner brought to the writer a rowing man, to give an opinion as to whether he was fit to row. The writer examined him stationary, and in a vertical, and in a horizontal position, without detecting anything abnormal. He would have passed him as a first-class life for insurance, until he made him run round the room twice or thrice, and then the epigastric pulsation became evident, and with it the familiar systolic murmur along the edge of the sternum. The writer gave his opinion that he was not fit to row in a hard race, and that if he did so the chances were that in the last quarter of a mile he would be merely a passenger. His medical adviser then said the man was sent to him because the remainder of the crew were afraid of him as he turned such a bad colour, and became so breathless after a sharp row. He did not think that the murmur could be elicited until the man was made to exert himself. The prognosis in such cases is favourable. As long as a man cuts off his strenuous competitions and goes in for golf, tennis, sculling, boating, and bicycle riding, and otherwise leads a healthy life he is not likely to be much troubled afterwards.—*The Medical Review.*

Paralysis of the Circumflex Nerve During Sleep.—

Banttini (*Il Morgagni Rivista*, Jan. 16, p. 56).—A man, aged 25, who had gone to bed drunk, noticed on the following day that he could not abduct the right arm which, near the shoulder, was red, hot, and painful. Movements of the forearm and of the hand were free. He had slept on the right side with his head upon the shoulder and the right hand behind the head. In about 5 days the signs of inflammation disappeared, but there were marked diminution in the strength of the right arm, wasting of the right deltoid region, flaccidity of the deltoid muscle, loss of sensibility to touch, pain, and temperature and reaction of degeneration in the area of distribution of the circumflex nerve. The paralysis was due to pressure on the circumflex nerve, but alcoholism probably was a predisposing cause.—*The Medical Review.*

Ascites in Typhoid Fever.

BY

PROF. ALEXANDER MCPHEDRAN.

Peritoneal effusion in typhoid fever, apart from peritonitis, must be rare, for there is no reference to it in literature. During the last 3 years 6 cases with signs of such effusion have come under the writer's observation. The effusion occurred during the course of the illness, persisted

10 to 14 days, and disappeared in all but one during convalescence. In all the cases the illness was severe, but in only one were there hæmorrhages or symptoms of peritonitis.

CASE 1.—A married woman, aged 33, who had 2 children, was admitted to hospital very ill, with a temperature of 104° . After a few days there were rose spots, enlarged spleen, leucopenia, and the Widal reaction. The abdomen was never distended but remained relaxed throughout. The attack was severe and protracted. In the third week both flanks were full in the dorsal position and the note on light percussion was dull to the nipple line, but on deeper percussion was amphoric. Fluctuation was easily obtained. When the patient was turned on her side the upper flank became concave and tympanitic, and the dependent one full and rounded with fluctuation and well-marked dullness to the parasternal line. These signs were not due to fluid in the colon, for a copious enema had no effect on them. A purgative was given and acted freely without affecting them. The quantity of fluid diminished twice and increased again. Finally, it gradually disappeared, leaving the flanks retracted when the temperature became normal.

CASE 2.—A labourer, aged 22, was admitted on Sept. 22, 1905. He had typhoid fever in the preceding year, but the symptoms of the disease were now marked. There were the usual temperature, diarrhoea, moderate abdominal distension, rash on chest and abdomen, enlarged spleen, leucopenia, and Widal's reaction. The illness was protracted, apparently by a series of relapses. Signs of ascites were found on Oct. 23 and were marked until Dec. 6. Then they diminished and disappeared in 10 days. The abdomen was flaccid throughout and was not tender on deep palpation. Convalescence was satisfactory. The sputum was scanty, but in such as was obtained no tubercle bacilli were found.

CASE 3.—A man, aged 35, was admitted. The abdomen was tympanitic in all parts, including the flanks. The rash was profuse and widespread. Two days after admission the flanks were found full and flat on percussion to the mamillary line, and fluctuation was edistinct. The signs of effusion lasted over 3 weeks and disappeared with convalescence.

CASE 4.—A young man had well-marked symptoms of typhoid fever. About the end of the second week signs of moderate peritoneal effusion developed, persisted for 2 weeks, and then disappeared rather rapidly. The ophthalmo-tuberculin test was negative. After the temperature had been normal 3 days left pleuritis began with much pain. The effusion

was fairly free, although no fluid was obtained on aspiration. To determine whether it was due to tuberculosis, a further test was made with old tuberculin subcutaneously and proved negative.

CASE 5.—A girl, aged 15, was seen in consultation in the second or third week of her illness. There was a large quantity of fluid in the peritoneal cavity; the sigus were first observed on the preceding day, but the effusion had probably been present for some time. The illness was severe, the temperature being over 104° . There was no pain or tenderness in the abdomen; its walls were not rigid. The signs of fluid disappeared a few days later; good recovery followed.

CASE 6.—In this case the effusion was probably due to tuberculous peritonitis. A man, aged 23, was admitted on Sept. 24, 1907, with a temperature of 101.8° and a pulse of 80. He was employed washing in a garage and a fellow workman occupied the next bed, and was taken ill at the same time. The symptoms of typhoid fever were well defined in both cases, and the disease ran a rather severe course. In the fourth week there was phlebitis of the left saphenous vein, with marked chills, the temperature rising to 108.4° after the first chill. A few days later there were signs of effusion first, into the left, and then into the right pleura. Two weeks later there were well-defined sigus of peritoneal effusion, the quantity being greater than in any of the preceding cases. The abdominal wall was rather rigid and somewhat tender to firm pressure. The temperature was slightly, but irregularly, elevated, and the leukocytes, which had been below 5,000, rose to 12,000. A tuberculin test was made; there was no reaction to 0.5 mgm. given subcutaneously, but 2 mgm. caused a well-marked reaction. Later, there was marked ophthalmotuberculin reaction. The general condition improved, although the peritoneal effusion persisted. He left the Hospital on Jan. 21, 1908, in good condition, but with much fluid still in the abdominal cavity.

In at least 4 of these cases the effusion was evidently due to the typhoid infection. The disease was severe and attended by much prostration. The abdomen was very relaxed and the contents therefore had little support, so that the vessels would easily dilate, permitting considerable stasis, or at least marked slowing of the current of blood, thus favouring serous exudation. Possibly, also, the mesenteric glands were enlarged, causing slight but sufficient irritation of the peritoneum to excite effusion. Toxæmia is another possible cause of the effusion. If hepatic cirrhosis something more than simple obstruction to the porta vessels is required to cause ascites. This may be a toxic substance which affects the hepatic cells so as to obstruct further the portal circulation, or alters the peritoneal epithelium so as to permit a more rapid escape of serous exudate and possibly also to cause obstruction of the peritoneal lymphatic vessels.—*The Medical Review.*

Spontaneous Evacuation of Ascitic Fluid.

J. Chaliér and J. Chattot (*Gaz. des Hôpitaux*, Dec. 3, p. 1659).—The spontaneous evacuation of fluid from the abdomen is rarely mentioned in text books, but numerous cases were recorded by older observers when paracentesis was less practised. The majority of the cases have been due to cirrhosis of the liver, and the most frequent site of evacuation has been the umbilicus. The perforation of the umbilicus is favoured by the presence of a hernia due to the distension of the abdomen, the parts becoming evaginated like the finger of a glove. The actual perforation may take place in one of two ways. The umbilical scar, badly supplied with blood, becomes gangrenous from pressure, and from secondary infection the process extends till perforation occurs, or the distension may be so great as to stretch the skin till it gives way under sudden efforts as coughing. A similar mechanism explains the cases in which the fluid has found an exit in other parts such as the linea alba, the scrotum or a femoral hernia. In the latter case there must have been free communication with the peritoneal cavity. A case of evacuation by the rectum has been reported by one of the writers. The necropsy showed several ecchymotic patches in the vicinity of the promontory of the sacrum with a small perforation into the bowel which gave issue to the fluid. Probably the hæmorrhages were produced by compression of the bowel against the bone, while they in turn favoured the occurrence of the perforation under some temporary increase of pressure, as during defæcation. Though this observation remains unique, in a considerable number of cases the spontaneous disappearance of ascites has been observed on the sudden occurrence of profuse diarrhœa, diuresis, or vomiting, which may have been due to perforation into the viscera concerned.

The establishment of the fistula is usually painless, and very free and rapid evacuation may occur, the fluid escaping for several hours like a jet of urine. When the evacuation is too rapid collapse may occur, the patient becoming comatose, and dying in a few days. Peritonitis rarely results even when perforation occurs in the vicinity of a septic process, and the fistula remains open for a long time. Air may enter the abdomen on the movements of respiration without infection of the peritoneum, which seems very resistant in such cases. While patients in an advanced state of cachexia often sink rapidly after the occurrence of perforation, in more vigorous persons a fistula may remain open for weeks or months and produce considerable improvement. This amelioration has been so pronounced that it has been stated to have cured the ascites, but the majority of such cases were not observed for a sufficient period. The writers do not consider the presence of a fistula gives a better result than repeated paracentesis. The opening also tends to close rapidly in 1 to 4 weeks in healthy tissue and rather more slowly when there has been sloughing. Perforation may recur, as in a patient observed by Morgagni,

who died with ascites, although the fluid had been thrice evacuated spontaneously. In several cases the patients have themselves kept open or re-opened the fistula, and the production of an artificial fistula for the relief of ascites has been proposed by Jaboulay.

Perforation of the umbilicus should not be considered as trivial but should be guarded against by timely and repeated puncture so as to reduce the quantity of fluid in the abdomen. This is specially necessary where there is notable or increasing distension of the umbilicus. Repeated paracentesis cannot always be relied on to prevent perforation, as cases have been recorded in which a fistula formed after 20 or 50 tapplings and also when the protrusion of the umbilicus has been prevented by a compress. When perforation has taken place and the rupture is purely mechanical an attempt may be made to close it by folding the tissues about the umbilicus and maintaining them by collodion or suture. When a slough forms it is better to disinfect the parts and cover them with aseptic dressings, frequently renewed, under which healing may be obtained. In cases in which perforation into the intestine is suspected laparotomy is useless, from the small size of the opening and the absence of information as to its site. In a considerable number of cases the patient's condition is such that nothing can be done; the perforation is rapidly followed by fatal coma and is to be regarded as a late complication of the ascites.—*The Medical Review*.

The Detection of Seminal Stains on Clothing.—Corin and Stokis (*La Presse Médicale*, Feb. 13, p. 120).—The examination of a suspected stain for the presence of spermatazoa is often difficult, and the majority of the colouring agents in use are of little use in consequence of their diffuse action. The writers have recently shown the affinity which spermatazoa have for staining agents containing iodine such as Bengal rose and especially erythrosine. This last substance is a brown powder, forming in water a solution stable in the presence of ammonia. It is used in the strength of 1 in 200 in pure ammonia solution in which form it keeps indefinitely. In examining a supposed seminal stain a single fibre of the fabric is removed with scissors, and immersed in the staining solution for 1 or 2 seconds. It is then transferred to a drop of distilled water on a slide which is placed on a dark background, and the fibre is thoroughly teased with needles. It may then be covered and examined with a low power when the fibres of cloth being unstained it is easy to pick out masses of red points which on higher magnification are seen to be the heads of the spermatazoa. The presence of the ammonia prevents the staining of the vegetable fibres while the spermatazoa are deeply stained, and their tails may be easily seen by using a small diaphragm. When the seminal stain has dried into the cloth the tails of the spermatazoa may be more difficult to demonstrate, but in this case a deeper

colouration may be obtained by immersing the fragment of cloth before staining for a few minutes in Muller's fluid (bichromate of potash 1 part, sulphate of soda 2 parts, water 100 parts). This method is applicable to linen, cotton, silk and wool fabrics. The age of the stain seems of little consequence, spermatazoa being readily found in material 10 years old. The erythrosine solution stains most of the cellular structures of animal origin likely to be met with in suspected clothing such as pus, and epithelial cells, but while it shows these very clearly it does not detract from its value in the detection of spermatazoa, the appearance of which is characteristic.—*The Medical Review*.

Elastic Fibres in Sputum.

The presence of elastic fibres in, or their absence from, sputum is a matter to which less attention is sometimes directed than should be the case. Tubercle bacilli, pus-cells, mucus, adventitious micro-organisms of various kinds may all abound in sputum without there being any advancing disease of the lung. The granulations covering the walls of phthisical vomicae may give rise to sputum containing all the above, and yet from week to week the amount of lung tissue present remains the same. In such cases no elastic fibres are found in the sputum.

When lung tissue is being broken down by gradual extension of the tuberculous and ulcerative processes, on the other hand, there will be elastic fibres in the sputum in greater abundance or in less, according as much or little lung tissue is being destroyed each day. The only way of obtaining a definite proof of progressive lung destruction, and even some measure of the rate of that destruction, is by examination of the sputum for elastic fibres.

One of the simplest methods of such examination is as follows: The sputum is spread out in not too thin a layer upon perfectly clean microscope slides in the ordinary way, and allowed to dry spontaneously. When perfectly dry, but otherwise unfixed, the slides are put into Weigert's stain for elastic fibres for a quarter of an hour. After the staining, the films are washed and the excess of stain removed by immersion in a 1 per cent. solution of hydrochloric acid in alcohol. The preparations are then allowed to dry, after which they may be coated with cedar oil and examined under the microscope. The elastic fibres appear of a fine steel-blue colour, and they are readily to be distinguished from every other structure present.—*The Hospital*.

Notes on Hæmoptysis, with Illustrative Cases.

THE term hæmoptysis should include blood derived from bronchus, trachea, or larynx, but not from the fauces, nares, pharynx, or mouth. When a patient brings up blood, the first consideration must be to

determine whether it is a case of hæmoptysis or of hæmatemesis. These two conditions can sometimes be distinguished with ease, sometimes not at all, and sometimes only with more or less difficulty. It is necessary to inquire carefully into the history of the symptoms, to examine the blood that has been brought up, and to make as gentle a physical examination as possible, avoiding percussion of the chest for the time being and disturbing the patient as little as may be.

The following case illustrates the difficulty that may arise in distinguishing hæmoptysis from hæmatemesis.

A man, aged thirty-eight, was admitted to hospital on January 1 for bringing up blood. His father had died of gout, and one brother was gouty. Sixteen years previous to admission the patient had had a vesical calculus removed, and a year later he had passed through a moderately severe typhoid fever. He was in the habit of drinking five or six pints of beer a day and two or three "rums" before breakfast. Five years ago he had had severe epistaxis. On January 1, after having been in bed for about an hour, he felt a gurgling sensation in his throat, and his mouth filled with something which, on striking a light, he was horrified to find was blood. He brought up over half a pint. The house officer diagnosed hæmatemesis and put him to bed in the ward at once. Seen by the physician next day, the patient was a big stout man with a florid complexion and multiple dilated venules on nose and cheeks. His sclerotics were slightly jaundiced. There was no anasarca or ascites, but the liver could be felt with ease, its edge coming two inches below the costal margin in the right nipple line and the surface seeming to be hard and smooth. The lungs were emphysematous. There were no signs of pulmonary tuberculosis. The pulse was 82, regular, and not of high tension. The radial artery was not thickened. The cardiac impulse could neither be seen nor felt. The area of cardiac dulness was diminished on account of the emphysema. A soft systolic apical bruit could be traced outwards for some little distance into the left axilla.

The urine was of specific gravity 1018, with just a trace of albumen present; there were no renal tube-casts. The man was coughing up bright-red frothy blood mixed with a little mucus. Hæmoptysis was now diagnosed. The previous error of diagnosing hæmatemesis depended on the alcoholic history, the alcoholic appearance of the patient, the enlargement, or apparent enlargement, of his liver; on careful observation it became clear that the blood was coughed up and not vomited; it was also mixed with definite sputum. The cause in this case was not tuberculosis but mitral disease.—*The Hospital*.

Vermin which Spread Disease.

DR. JAMES CANTLIE read a paper of considerable interest at the meeting of the Royal Society of Arts last week, on the part played by

vermin in the spread of disease. He remarked that the question had only recently acquired a prominent place in the study of medicine. Certain ailments had long since been known to be due to infection from domestic animals, but protection against these diseases was dealt with in a more or less empirical manner. The new spirit of inquiry into the part played by vermin in the spread of disease had led to a knowledge not only of the worm, bacterium, or bacillus, which occurred in hyatids in the dog, trichina in the pig, or glanders in the horse, but also to an understanding why the parasites which caused these ailments should occur in both men and animals. A study of the life-history of the parasite had shown that many parasites required two hosts; otherwise they died out. They must pass a portion of their life in an animal, and another portion of their life in man before their cycle of development was completed. It was unfortunate that so many people had run away with the idea that the present movement for the destruction of vermin related mostly to rats. It was not a question of more rat-catching, but a scientific inquiry whose object it was to discover how diseases brought to man by animals could be rooted out by destroying one of the hosts necessary to the life of the parasite. Plague in man was associated with rats, and the channel by which the bacillus of plague passed from the rat to man was the rat flea. The rat had been held from ancient times as the cause of disease, and had been and was shunned by mankind in all countries. Our dread of the rat as a mere animal was inexplicable, but in the light of a transmitter of disease the hatred of this rodent was readily understood. Plague was perhaps the most abhorred of all diseases. Its deadliness and the time it persisted in a country, once it got hold, were sufficient to establish this dread. In sleeping sickness the disease was transmitted by the tse-tse fly. The crocodile was believed to be the alternative host, the fly serving as a carrier only. Ticks played an important part in the transmission of disease. African relapsing fever was due to a parasite conveyed by a tick. Lice, bugs, and cockroaches too; were all incriminated as transmitters of disease.—*The Sanitary record and journal of Sanitary and Municipal Engineering.*

Laryngeal Paralysis and Œdema of the Glottis in Beri-beri.—H. E. Kamasugi (*Berlin. Klin.*, June 8, p. 1084).—In Tokio, where the writer practises, beri-beri is endemic, and is responsible for from 1,500 to 2,000 or more deaths annually. Minra states that laryngeal paralysis is a not infrequent complication, and is sometimes accountable for sudden death. The writer has published 10 cases of laryngeal paralysis or Œdema of the glottis. Paralysis is usually unilateral, and occurs most often on the left side. Complete bilateral paralysis is rare. Of 5 cases of laryngeal paralysis now published, the left recurrent laryngeal nerve was affected in 3, and both recurrent laryngeal nerves in 2.

Laryngeal paralysis is sometimes due to pressure on the recurrent laryngeal nerve by a dilated heart (dilatation in beri-beri affects chiefly the right ventricle and auricle) or by hydropericardium. But many cases which cannot be thus explained, are probably due to toxic peripheral degeneration of the laryngeal nerves and muscles. Possibly, however, the condition is peripheral neuritis rather than degeneration. Laryngeal Œdema in beri-beri appears not to be inflammatory, as there are no signs of inflammation. It is probably a congestive symptom and part of the general hydropic condition. It is undecided whether the Œdema of beri-beri is entirely of cardiac origin or whether there is a peculiar endarteritis.—*The Medical Review.*

Sudden Death from Prophylactic Injection of Antitoxin.

The following remarkable case has recently occurred near Oxford:—A girl, aged 18, had a sister suffering from diphtheria, and the practitioner in attendance advised the injection of antitoxin as a prophylactic. After the injection she complained of smarting pains, and said that she was suffocating. She became worse, and in a few minutes fell from her chair and died. She had suffered from asthma for years, and the practitioner thought that death was due to asphyxia from an acute attack of asthma. An inquest was held. Dr. Collier, Ex-President of the British Medical Association, made a necropsy. He found the lungs and heart in such a condition as would be caused by a sudden and extreme spasm which might be accounted for by an acute attack of asthma. He thought that the injection of antitoxin started such an attack. Dr. Dreyer, Prof. of Pathology in the University of Oxford, attended the examination and agreed with Dr. Collier's view. The jury returned a verdict that death was due to an acute attack of asthma started by injection of diphtheria antitoxin which had been administered with proper care. We may point out that a series of cases in which symptoms of asphyxia followed the injection of antitoxin in the treatment of diphtheria, of which 3 were fatal, have been reported in the past year, in the *Journal of the American Medical Association*. (See "REVIEW" 1908, p. 469). Such untoward consequences have been attributed to "anaphylaxis," a condition of increased susceptibility to toxic substances which can be induced artificially in animals, by previous administration of the substance in question.—*The Medical Review.*

Excretion of Urotropine in Cerebrospinal Fluid—Its Therapeutic Value in Meningitis

BY

S. T. CROWE, M. D.

In a prior publication the author reported a case with cerebrospinal fistula in which a fatal outcome was looked for, and in which at Dr. Cushing's suggestion, urotropin in large doses was given in the hope of its cerebrospinal excretion. The boy recovered; and this led to the writer's further studies. Thus in cases of chronic nephritis, brain tumor or hydrocephalus, when lumbar puncture was to be done, the patients were given a 10- or 15-grain dose of urotropin; the cerebrospinal fluid removed was tested by a modification of Hehner's test, and urotropin was invariably found present. A number of observations made showed that the drug may possibly be absorbed as readily by the rectum as when given by the mouth.

In some instances urotropin was not given till the cerebrospinal fluid was dripping steadily from the needle. By testing specimens every few minutes, the first appearance, maximum concentration and gradual disappearance of the drug could be followed. After a 15-grain dose, the maximum concentration generally appeared thirty minutes to one hour later.

To determine if the amounts which appeared in the cerebrospinal fluid were sufficient to exert decided bactericidal action, the fluid taken from the body was inoculated with organisms and the inhibitive effect noted. The tables and photographic plates incorporated in the paper show a striking antibacterial effect, namely a reduction in the number of colonies from about 30,000 to about 500 within 1 hour 50 min.

The effect of urotropin on meningitis in animals, produced by subdural inoculation with streptococci, was to defer or entirely prevent death.

Though there is no accurate method of determining the amount of urotropin in the fluids, the impression was gained, from the comparative color tests of cerebrospinal fluid and urine, that in the case of animals with meningitis a larger amount of urotropin appears in the cerebrospinal fluid than in the urine. If this be proved, it would suggest some selective action, possibly through the agency of the leucocytes, which have the power of taking up urotropin, as Vindevogel (*Ann Soc. Roy. Science Med.*, Bruxelles, 1902, Vol. II) proved.

When the first dose of urotropin was given subsequent to inoculation of the animals, the infection was merely checked during the continuance

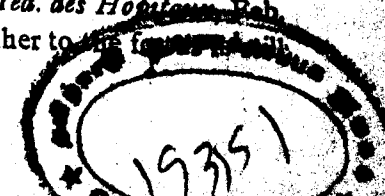
of active therapy; as soon as the drug was withdrawn, the organisms began to multiply with a return of clinical symptoms. This is much the same experience as with urotropin in genito-urinary infections, and is akin also to the author's experiences with the drug in biliary infections. Therefore the most marked therapeutic value of the drug seems for prophylaxis or at least in early infections.

During the past year it has become a routine measure in the Johns Hopkins Hospital to promptly administer urotropin to all patients with lesions, which are not infrequently followed by meningeal infection; and the complete absence of such complication in quite an extensive series of cases seems to fairly well establish the prophylactic importance of the drug. This series included a number of compound fractures of the skull, gunshot wounds of the head and cerebrospinal fistulas, the patients receiving 30 to 60 grains urotropin daily. It is also used prior to ventricular or lumbar puncture, when local conditions make possible the inoculation of the meninges with organisms from an infected skin; just so urotropin should be given before a first catheterisation or one done when urethral infection is present. Possibly, too, the drug may be wisely used in cases of extracranial infection when extension to the meninges is feared, as in infected scalp wounds, otitis media, suppuration of the cranial sinuses. Its use may be desirable also in elaborate spinal or cerebral operations.

The author summarises: (1) Urotropin, given by mouth, invariably appears in the cerebrospinal fluid. This fact has been demonstrated by a large number of observations on man, and is also true for dogs and rabbits; (2) The largest amount of urotropin is present in the cerebrospinal fluid from 30 to 60 minutes after ingestion of the drug; (3) after therapeutic doses, a sufficient amount of urotropin appears in the cerebrospinal fluid to exercise a decided inhibitory effect on the growth of organisms inoculated into this fluid after removal from the body; (4) following a subdural inoculation of dogs and rabbits with streptococci, 60 to 80 grains of urotropin a day, given under conditions which insure absorption, will markedly defer, and in some cases prevent, the onset of a fatal meningitis; (5) the prompt administration of urotropin is advised in all clinical cases in which meningitis is a possible complication, or even when meningeal infection has actually occurred.—*The Buffalo Medical Journal*.

Congenital Malaria.

DUMOLARD and VIALLET (*Bulletins de la Soc. Med. des Hopitaux*, Feb. 5, p. 229).—Transmission of malaria from the mother to the fetus.



subject to discussion. Some cases have been recorded but they are open to objection; either the malarial parasite was not found, or it was found so long after birth that the infection may have been acquired. The following case puts beyond doubt the possibility of congenital infection:—

A married woman, aged 31, in the seventh month of her fourth pregnancy, was admitted to hospital at Mustapha, Algiers, on Aug. 12. She lived in a malarious region, but was in good health 4 days previously when she became feverish. After 4 hours the attack ended with abundant perspiration. On each of the following days a similar attack occurred. On examination on the 13th she was free from fever but was very anæmic and there was a slight subicteric tint which was due to hæmolytic, for the urine did not contain bile. The spleen was much enlarged. The red blood corpuscles contained numerous non-pigmented hæmatozoa. On the 14th another attack occurred. Twenty centigrammes of hydrochlorate of quinine were given hypodermically every 2 hours. On the 15th a well-formed living male child, weighing 5lb., was born. It lived only an hour. Blood from the umbilical cord, the heart of the foetus, and the placenta contained hæmatozoa like those in the mother's blood. Quinine was not given on this day; and on the 16th a grave attack of fever accompanied by stupor, occurred. Three injections of 50 centigrammes of quinine were given. On the 17th there was slight improvement and 20 centigrammes of quinine were given every 2 hours. On the 18th she was improved and 150 centigrammes of quinine were given, and on the 19th the dose was reduced to 100 centigrammes. On the 20th there were no parasites in the blood and no quinine was given. An abscess formed on the abdomen at the site of the hypodermic punctures and was opened on the 30th. On Sept. 3 there was phlebitis of the left leg with fever, pain, and œdema, but the uterus showed nothing abnormal and the general condition remained good. Recovery ensued.

This case proves the possibility of the transmission of the malarial parasite across the placenta to the foetus, for there was no uterine hæmorrhage by which the infection could have been conveyed. The frequency of such transmission has not been determined. Many cases have been published to show that even in severe malaria the foetus is not infected, but its health is often impaired. Probably when it escapes the hæmatozoon itself the toxins filter across the placenta. Malaria is a powerful cause of abortion, which is more likely to occur when, as in the present case, the foetus is infected. But apart from foetal infection the destruction of the red corpuscles and the fever in the mother may produce

abortion. It follows that a pregnant woman suffering from malaria should be given quinine. No doubt in exceptional cases quinine excites uterine contractions and produce abortion, but it is the only means of combatting an infection likely to produce abortion and then kill the mother. In the present case the infection of the foetus shows that quinine was doubly indicated.—*The Medical Review*.

Poisoning by Magnesium Sulphate.

C. A. FRASER, M. A., M. D., D. P. H. (*Lancet*, Apr. 24, p. 1174).—The writer was summoned at 2-30 p. m. to a boy aged 3½ years. Twenty five hours previously, during his mother's absence, he took a heaped-up teaspoonful of Epsom salts from a packet, imagining it to be sugar. Finding his mistake, but wishing to remove traces of his guilt, he washed the salts down with a mouthful of milk. On returning a few minutes later his mother found him retching, and apparently in considerable pain. Nausea and retching continued throughout the day. About 7 p.m. the abdominal pain, which was of a gripping, spasmodic character, was severe, and vomiting became prominent. Thirst was also distressing, and there had been no action of the bowels. Castor oil was given and at once rejected. Throughout the night patient continued to suffer severe pain and vomited frequently. He rapidly became worse.

He was obviously very ill. He lay in bed on his back, with pinched face, sunken eyes, and pale skin. About every two minutes he had colicky attacks which made him draw up his legs. The temperature was 100·5°; the pulse 160 and small; the tongue was very dry, the papillæ standing out prominently. Thirst was intense; the bowels had not acted. About ½ oz. of urine had been passed during the 24 hours. The abdomen was very distended and rigid; the skin was markedly hyperæsthetic, so that palpation was difficult. This hyperæsthesia was least over the epigastrium, where the percussion note was tympanitic; in both iliac regions and in the hypogastrium it was dull. A catheter was passed and about ½ oz. of dark muddy urine was drawn off which contained no albumin and was very acid. At 9-30 p.m. the patient seemed weaker; he was still very sick, vomiting every few minutes greenish-yellow stuff which had no characteristic odour. The distension was more pronounced; the percussion note was more generally tympanitic, the dullness being limited to the left iliac region. At 2-30 a.m. on the next day vomiting was as incessant as before; neither bowels nor kidneys had acted; the pulse was uncountable and the temperature 100·5°. There seemed to be rather less tenderness on palpating the abdomen and the dullness was still limited to the left iliac region; the liver dullness seemed normal. The symptoms suggesting acute peritonitis, laparotomy was deemed advisable and the patient was at once removed to the Sussex County Hospital. The

following notes were supplied by Mr. A. H. Buck, under whose care the patient was admitted.

"On admission the child was collapsed; temperature sub-normal; pupils dilated; pulse 160; abdomen rigid and retracted with very slight movement. Laparotomy performed about 3.30 A.M., about 2 pints of blood-stained serum were let out; there was no lymph. This blood-stained serum was submitted to the pathologist, who reported that it was sterile. The large intestine was drawn out; lumps of *fæces* and gas were present; the appendix was healthy; through small intestine green matter seen as in vomit. No cause for obstruction found. Drained with rubber tube and gauze plug.

"*First 24 hours.*—Temperature rose to 100.6°; pulse about 170° child very ill and restless; vomited frequently, bright-green stuff at first and later yellow; no *fæces* or flatus passed in spite of enemata; constantly cried for something to drink; quantities of blood-stained serum continued to drain away; dressing changed 4 hourly; child moribund; fed on albumin water and brandy, and rectal saline not retained.

"*Second 24 hours.*—Child still moribund; pulse practically uncountable; saline injection into subcutaneous tissues of axilla given, after which child seemed better and slept; still sick, but this symptom subsided later. Half gr. of calomel given every hour; temperature 101.5°. In the afternoon flatus and *fæces* passed and again after enema; catheter passed at 9 p.m. and 1 oz. urine drawn off.

"*Third day.*—Bowels opened frequently; urine passed naturally; temperature falls to normal; child much better; wound healing; no discharge from wound; recovery followed."

The illness must have been due to the salts. The child had been in perfect health up to taking the dose. He then became acutely ill. A medium-sized teaspoonful of Epsom salts weighs about $\frac{1}{2}$ oz.—a very large dose at this age. The earliest symptoms were those of gastric irritation. The condition of shock which developed later might have been due to the same cause. The symptoms of acute peritonitis were probably due to some lower lesion in the alimentary tract. It was suggested that as a result of taking the salts there may have been a volvulus or intussusception, causing the effusion of serum. This volvulus or intussusception, it was urged, could easily be reduced during the operation (or as the result of the anæsthetic before the abdomen was opened) without being recognised. Against intussusception was the fact that there were no purging and no tenesmus. The bowels had, in fact, not acted at all. Volvulus, on the other hand, was compatible with the violent retching and vomiting. Its diagnosis is difficult at all times. Whilst this theory accounted for most of the symptoms prior to the operation it was less easy to reconcile it with the condition during the first 24 hours after

operation. The persistence of the constipation, the result of paralysis of the bowel, might have been due to shock. The vomiting, however, was not so readily explained. The extreme rarity of poisoning by Epsom salts is shown by the fact that the following 6 cases embrace a period extending from 1841 to 1896.

CASE 1. (*Taylor*).—A bibulous old man, was the victim of a practical joke. Large quantities of Epsom salts were added to his beer. On drinking several pints he was seized with violent purging and died in 48 hours. The mucous membrane of the alimentary canal was found to be inflamed, says Taylor, and "there was no doubt that death was due to the irritant effect."

CASE 2. (*Christison*).—A boy, aged 10, was given 2 oz. of salts, partly dissolved and partly mixed in a cupful of water, by his father, who thought that he was suffering from worms. Immediately he staggered and fell. When seen by his medical attendant half-an-hour later the breathing was slow and difficult, the pulse was imperceptible, and the whole frame seemed to be in a condition of great debility. He died in 40 minutes. There had been no vomiting or purging, and there were no morbid appearances after death. "This case shows," says Christison, "that in certain circumstances the laxative neutral salts may be irritating enough to cause death."

CASE 3. (*Neale*).—A boy, aged 15, took 1 oz. of salts in solution on an empty stomach 24 hours before he came under observation. He passed 3 small motions. A few hours after taking the dose he felt sick and this symptom continued throughout the night. Next day he tried to work but had to give up the attempt. Vomiting continued at frequent intervals. When first seen he was lying in an attitude of flexion, was very cyanosed, and had severe attacks of tetanic spasms affecting the right side of the face and arm. The urine was dribbling away, the pulse was imperceptible, and the temperature was 105°. At frequent intervals he vomited greenish fluid. Next day he seemed much better and 40 oz. of urine were drawn off. In a week he was completely well.

This case resembles the one recorded above, and something may be said in favour of the same diagnosis. The delayed sickness and its persistent character, the fact that there was some action of the bowels with possibly considerable tenesmus, and to some extent the age suggested intestinal obstruction—probably intussusception. Some of the symptoms may have been due to a toxic action, the tetanic spasms affecting the right side of the face and arm being due to a selective action of the salt on the cells in the motor cortex.

CASE 4.—A woman took 4 oz. of salts at one draught and died an hour later. As the case occurred in Scotland no inquest was held and death was certified as due to paralysis from an overdose of salts.

CASE 5 (*Luff*).—A woman, aged 20, was found in the morning dead on her bed, which had apparently not been slept in. Death had taken place some hours before the discovery. At the necropsy no inflammation of the mucous membrane of the stomach was found, but the organ contained about 1½ oz. of a solution of Epsom salts. She had purchased an oz. of salts on the previous day and had taken it on an empty stomach. Death was attributed to syncope.

CASE 6. (*Sang*).—A woman, aged 35, took 4 oz. of salts in warm water to induce menstruation. On swallowing the dose she complained of burning pain in the stomach and bowels and had difficulty in breathing, a choking feeling and a sensation as if the power were leaving the legs. The tongue and mucous membrane were normal. There was no sickness, vomiting, or purging. The pulse was 98; the pupils were dilated. There was at times slight twitching of the face, but complete paralysis rapidly ensued, the patient becoming comatose and dying 75 minutes after taking the dose.

The history of this case points strongly in favour of the toxic theory. The preliminary irritation of the stomach, although considerable, was apparently not sufficient to cause vomiting. Absorption consequently took place all the more readily. Dr. W. Sang attributed the symptoms to "a direct action on the cerebro-spinal system." It has recently been shown that magnesium sulphate has a paralysing effect on the nervous system. Hence it has been used to present the spasms of tetanus—*The Medical Review*.

SURGERY.

Appendicitis from Threadworms.

BRUMPT and LECENE (*Bulletins de la Soc. Med. des Hopitaux*, p. 15).—Intestinal worms, particularly the trichocephalus and the oxyuris, are often found in the normal appendix. Threadworms, which are common in children, live in the early part of their life in the small intestine, and in the adult state migrate to the large intestine and the appendix. Under certain conditions, which are not known, they penetrate the wall of the intestine. Threadworms are essentially migrators: they sometimes quit the intestine and enter the vagina and become parasitic in the uterus and Fallopian tubes, where they may become encysted. They have been found in the peritoneal cavity, which Prof. Vuillemin, of Nancy, thinks they enter by traversing the intestinal wall. Galli-Valerio (*Centr. f. Bakt. u. Parasit.*, XXXIV., 1903), Weinberg (*Annales de l'Inst. Pasteur*, XXI., 1907) and Unterberger (*Centr. f. Bakt. u. Parasit.* XLII., 1908) have recorded cases in which threadworms penetrated the wall of the appendix, producing appendicitis. The writers report the following additional case:—

A boy, aged 11, was admitted to hospital on Sept. 19, 1908. On the previous day he was seized with acute pain in the right iliac fossa, vomited twice, and became feverish. The temperature was 100·7°, and the pulse 100. The abdomen was a little tympanitic and tender over the iliac fossa, where there was also muscular rigidity. The expression was good, but as the pains persisted in spite of the application of ice and withholding food, laparotomy was performed. On opening the peritoneum, which was a little red, clear serous fluid escaped. The appendix was swollen to the size of the little finger and turgescient. It was removed, and rapid recovery followed.

On opening the appendix numerous hæmorrhagic spots and acute folliculitis were seen. The lumen contained partly coagulated and digested blood in which were imprisoned about 50 male and female threadworms. Some were fixed to the mucous membrane in the position of the hæmorrhagic spots. The appendix contained no fæces. It was hardened in formol and then in "Bouin's fluid" and cut in longitudinal sections. These showed the lesions of acute appendicitis—folliculitis and hæmorrhages. The submucous tissue was sclerosed from chronic inflammation. At the ecchymoses the mucous membrane was destroyed and irregular tracts of blood extended into the substance of the appendix. In a transverse section a worm was found in the wall of the appendix. It seemed to be a male oxyuris. Near it was a cavity surrounded by cells with flat nuclei. This cavity had been occupied by an oxyuris which had caused the cellular infiltration. Similar cavities were described by Galli-Valerio, who refers to spaces like perforations surrounded by a zone of infiltration containing microbes. In the present case no microbes could be found in stained sections. This was perhaps due to the chronicity of the lesion, the microbes having succumbed to phagocytosis.

The writers think that cases of appendicitis due to threadworms are frequent, and that the worms are overlooked because they are not looked for systematically. If sections of the appendix had not been made their case would have been described as "hæmorrhagic folliculitis"—a name which would satisfy some pathologists but in no way explains the genesis of the disease. As the male oxyuris measures only from 2 to 4 mm. in length and from ⅓ to ½ mm. in diameter it may easily be overlooked.—*The Medical Review*.

A Prospective Cure for Elephantiasis.

W. Sampson Handley, M. S., M. D., F. R. C. S. Eng. (*Lancet*, Jan. 2, p. 31).—Elephantiasis is regarded as incurable. The improvement

which the operation of lymphangioplasty has produced in the following case is so great and striking as to justify the hope that a cure has been found. The writer's experience in other directions has shown that the effect of the operation is not merely transitory. Stout silk threads running the whole length of the limb are introduced into the subcutaneous tissues of the swollen part. The threads are completely and permanently buried. Their capillary action enables them to replace the trunk lymphatics and to transfer the excess of fluid from the area of lymphatic œdema to normal regions where the fluid is absorbed into the general circulation. In a preliminary communication (*loc. cit.*) on lymphangioplasty the writer recorded 2 cases in which it successfully relieved the "brawny arm" of breast cancer.

Elephantiasis, unlike the lymphatic œdema of breast cancer, cannot be treated on purely mechanical lines. In the latter affection, the lymph of the swollen limb is a sterile fluid, but in elephantiasis there is a chronic infection of the tissues with micrococci. Vaccination against the infective micrococci, although powerless to reduce the œdema, appears to be an essential preliminary to the operation of lymphangioplasty.

A man, aged 46, was admitted to hospital in Apr. 1908, for sporadic elephantiasis of the left leg dating from 1895. In that year the left testicle became swollen, hard, and nodular, as if the seat of a sarcoma. The left leg presented patches of erythema and was painful but not at first greatly swollen. The left inguinal glands were enlarged. About 1898 the swelling of the leg became more marked. There were recurrent pyrexial attacks, ushered in by a rigor and headache and accompanied by patchy erythema of the leg. During these attacks the limb was painful, especially at night. He had never been abroad. The leg was incised and portions of tissue were removed, with temporary benefit. The swollen testicle was also incised and subsequently it had to be removed.

The left lower limb was enormously enlarged by solid œdema, especially below the knee. On the posterior aspect of the calf were two huge masses separated by a deep cleft or crease. Another large mass occupied the dorsum of the foot. The patella could not be felt. The thigh was much enlarged but presented no pendulous folds. The skin was much thickened, coarse, and rugose. Repeated nocturnal examinations showed that filariæ were absent from the blood.

On Apr. 18, the writer performed lymphangioplasty, leading the threads from the foot up to the iliac fossa, where they were imbedded in the iliacus muscle. The drainage of lymph from the limb was so free that on the day following operation a large cushion of œdema appeared in the left loin. Concurrently the swelling of the limb subsided rapidly, the bandages became loose, and the pendulous folds of subcutaneous tissue shrank and took on the consistency of a sucked orange. Within

5 days the ankle diminished in circumference from 21 to 14½ in. and in 9 days the calf shrank from 24½ to 17 in. About Apr. 27, the stitches were removed and all the wounds had healed except one on the outer side of the calf, from which a little pus could be expressed. The temperature rose, other incisions re-opened, and red lines appeared along the silk tracks. On May 2, therefore, the writer removed all the silk and syringed out the tracks with zinc chloride. By May 5 the swelling of the leg had begun to recur. Constitutional disturbances remained slight. Suppuration continued for some time and an abscess formed in the thigh, but by June 19, the leg was soundly healed. Up to this point the case had been a failure. It was remarkable that suppuration had not set in until the ninth day after operation. If it had been due to infection of the silk from the skin it would probably have begun earlier. The writer thought that the suppuration was of endogenous origin and that it indicated a prior chronic infection of the tissues of the leg.

On Aug. 1 the patient was readmitted in good health. The pulse and temperature were normal but micrococci were cultivated from the blood of the arm. Lymph withdrawn from the leg by a Southey's tube was found to contain diplococci. The extermination of this organism seemed essential before any further operation was undertaken. Mr. Foulerton prepared from the micrococcus a vaccine which was injected subcutaneously at intervals from Aug. 31 to Oct. 12. On Oct. 5 and again on the 12th lymph from the leg was found to be sterile. It was therefore presumed that the vaccine treatment had destroyed all the micrococci in the limb. The leg had attained a size greater than ever before.

Lymphangioplasty was again performed on Oct. 17, after most careful and thorough preparation of the skin. The silk threads, so as to avoid the scars of the previous operation, were carried up to the gluteal region, where they terminated in the subcutaneous fat. All again went well until Oct. 26, when the temperature rose to 99.4°, the very day, the ninth after operation that trouble had begun on the first occasion. No local irritation could be seen about any of the incisions. A dose of vaccine (200,000,000 cocci) was immediately injected, and the supports which had raised the foot of the bed 18 in. so as to promote drainage were transferred to the head of the bed. The effect was, of course, to produce a passive œdema of the left leg, the tissues of which rapidly began to refill. The limb was practically treated by Bier's method. The temperature rose to 100° on the day following, but then rapidly subsided without the development of any local trouble. The stitches were removed on Oct. 27 and all the incisions were found to be healed except one on the foot where the skin was extremely thick and indolent. Any possible risk from this was guarded against by the use for a few days of weak carbolic baths for the foot. On Nov. 1 the dressings were left off and the limb was re-elevated.

The effect of the operation in reducing the swelling of limb is shown in the following measurements. Neither elastic bandaging nor massage had

		Oct. 14.	Oct. 27.
Circumference in inches at mid-tarsal joint	..	14½	11½
„ above ankle	..	21½	13½
„ of leg below knee	..	25½	17
„ at knee-joint	..	20	16½
„ of thigh 9 inches above knee	..	24½	21½

been begun. On Nov. 12, the patient had been allowed to walk about for several hours daily, and an elastic bandage was applied to the limb. Still further diminution in the size of the limb was obtained. The tissues became abnormally softened and lax, hanging in folds about the bones, and the thickened skin became thin and supple.—*The Medical Review*.

Removal of Adenoids under Local Anæsthesia.

F. Hutter (*Wien. Med. Woch.*, Oct. 10, p. 2263).—In refractory or very young children a general anæsthetic is preferable; in older children and adults local anæsthesia is feasible and much safer. Simple painting of the pharynx with cocaine is not recommended. To render the deeper parts of large pharyngeal tonsils anæsthetic repeated paintings are required, and the process is almost more objectionable than the operation itself. Similarly the introduction of the anæsthetic through the nostrils effects only superficial anæsthesia. The writer first attempted to anæsthetize the naso-pharynx by injecting cocaine into the substance of the adenoids through a syringe with a curved needle, which was passed behind the soft palate from the mouth. But it was not always easy to pass the needle sufficiently high to anæsthetize the roof of the naso-pharynx and frequently a considerable portion of the liquid flowed away between the clefts of the tonsil—a process which was favoured by the vertical direction of the needle-track. He then experimented with passing the needle through the nostrils. A probe introduced into a nostril and passed backwards and upwards towards the superior margin of the posterior nares impinges against the anterior portion of the roof of the pharynx. Hence a long needle similarly passed penetrates the fornix pharyngis and enables the insertion of the pharyngeal tonsil to be infiltrated. As the liquid is injected into the deeper part of the tonsil it does not readily flow away, though an exact infiltration, as in

Schleich's method, is not possible. Hence the anæsthetic solution should be more concentrated than for ordinary infiltration anæsthesia. Cocaine was thus out of the question—especially in children. Novocain in 2 to 4 per cent. solution proved unreliable. A 5 per cent. solution of B-eucaine in a hot sterilized 0·8 per cent. solution of NaCl was quite satisfactory. Eucaine can be sterilized by boiling, is but slightly toxic, and, having no vaso-constrictor action, is not liable to be followed by secondary vasoparesis and hæmorrhage. The following is the technique:—A camel-hair brush is soaked in a 10 to 20 per cent. solution of cocaine, passed through one nostril in the direction of the upper margin of the posterior nares, and left there for a time. The process is then repeated on the other side. Owing to the shrinking of the deeper parts caused by the cocaine the upper border of the posterior nares and the adenoid tissue behind them become—if they were not previously—visible by anterior rhinoscopy. These parts should then be rendered superficially anæsthetic by gently rubbing the camel-hair brush over them. This is important, especially in children, as otherwise the prick of the needle will be felt. The syringe used by the writer holds rather more than 2 c.c. (about 34 m.). The needle, which is 12 cm. (nearly 5 in.) long, comes off from the fitting almost at a right angle and is fixed to the nozzle of the syringe by a bayonet attachment. The orifice at the point is situated so as to face upwards towards the roof of the pharynx. Half a syringe-full is injected through either nostril. Five drops of adrenalin may be added to the syringe-full to increase the action of the eucaine. The needle should be introduced under the guidance of the eye, and the point should sink into the adenoid tissue and the mucous membrane of the roof of the pharynx just below the upper margin of the posterior nares and a short distance external to the septum. Even if the dividing line between the posterior nares and the adenoids is not obvious, with a little practice there is no difficulty in selecting a suitable site for inserting the needle. The latter is passed, on until it meets with the resistance of the basilar process. The point of the needle is slightly elevated so as to reach the highest layer of adenoid tissue. Considerable pressure is required to force the fluid into the tissues. If it flows easily it is a sign that the needle has not been passed sufficiently high towards the roof of the pharynx. The adenoids can be removed a few minutes later, in the great majority of cases without the slightest pain.

The method is especially suitable for older children and adults. The diagnosis should be made by anterior rhinoscopy as an attempt at posterior rhinoscopy or at digital examination often suffices to render children unmanageable. The method often succeeds in children under 10 and not infrequently even in those of 4 or 5. The adenoids can be removed thoroughly without resistance or crying.—*The Medical Review*.

Surgical Suggestions.

Strong antiseptic solutions should be avoided in dressing scalp wounds. For "wet dressings" Thiersch's (boro-salicylic), or Burow's (aluminum acetate) solution is sufficiently antiseptic.

Sudden one-sided diminution of hearing after bathing may indicate nothing more serious than water in the ear, or a plug of wax which has swelled up and obstructed the canal. If no means of syringing is at hand, the instillation of ether and alcohol, equal parts, will dry up the plug and often cause it to disintegrate, with a corresponding improvement in hearing. Swollen seeds, peas or beans in the external canal can be treated similarly.

Three or four drops of peroxide of hydrogen in the ear, followed five minutes later by thorough syringing with a solution of boracic acid of bicarbonate of soda, will readily remove impacted cerumen.

A hypodermic injection of morphine, gr. 1-6, about a half hour before a major eye operation, such as cataract or iridectomy, will keep the patient quiet, and make the extraction calm and free from pain. There is no danger of sudden motion of the head, and the technic is more exact and rapid.

A large dose of antipyrine or quinine will often clear up a frontal headache due to acute catarrh of an accessory sinus, by its astringent action on the mucous membrane, and the consequent improvement of drainage.

Always examine a child suffering from cholera for the presence of adenoids. The removal of the growths in the pharynx may cure a mild case.

Repeated attacks of "indigestion," not obviously due to some other condition, should awaken the suspicion of gallstones. Most of the patients operated upon for cholelithiasis give a history of having been treated for a long time for "dyspepsia," and in many of these cases the correct diagnosis might earlier have been established.

A moderately hard, palpable mass in the right iliac region is often diagnosed as acute appendicitis, with inflamed omentum around the appendix. But ileocecal tuberculosis, with inflammatory exudate, should be kept in mind.

The location of the head zone will often decide whether a case is one of acute appendicitis, with inflammation of the serosa, or acute salpingitis. If the head zone commences at the level of the umbilicus, extends over the right lumbar region and to just below Poupart's ligament, it is probably acute appendicitis. If the head zone begins two or three inches below the umbilicus, with a broad base on the abdomen, and extends to a single point midway between the hip-joint and the knee, the case is probably one of acute salpingitis.

The sudden acute onset of abdominal pain, with tenderness over the appendix region, but with rigidity of the right rectus low down, is very suggestive of acute salpingitis. The diagnosis is further confirmed if there is high temperature and extremely high leucocyte count (20,000-40,000; polynuclears, 80-90 per cent.), even though vaginal examination be negative.

The palpation of a pulsating vessel in the vaginal fornix of a woman who has skipped a menstrual period, will often give the clue to a possible ectopic gestation.

An abscess of the right ovary may give the same signs and symptoms as acute fulminating appendicitis. If an incision for appendicectomy is made, it should be of sufficient length and low enough down to allow of careful examination of the right adnexa.

A tumor on either side of the vertebral column, with a slight bulging in this region and scoliosis, is often a perinephric abscess. But if cord symptoms are present, a sacromatous growth of the vertebræ should be kept in mind.

A synovitis that persists, despite careful treatment, should arouse suspicion of tuberculosis.

One should inquire carefully for the history of the application of carbolic acid to a wound, especially of the finger or toe, when a gangrene with a distinct line of demarcation has developed.

When exploring for a needle or other foreign body, the finger-tip is often far more useful than a probe. It must be remembered, too, that strands of fascia often impart to a probe "the feel" of a foreign body. Cutting and picking at these deceptive strands of tissue soon distort the field of operation, and destroy important relations. It is extremely desirable to conduct a systematic and cleanly dissection when seeking a foreign body.

Nurses should be instructed not to massage the limbs of patients who complain of pain after operation or confinement, without the order of the attending surgeon. If phlebitis and thrombosis are present, the manipulation may loosen a clot and cause instant death.

If a patient complains of sharp pain in the big toe, examine the urine for albumin or sugar, in order to exclude a diabetic or nephritic condition.—"*Seven Hundred Surgical Suggestions*".—*The Canadian Practitioner and Review*.

OBSTETRICS & GYNAECOLOGY.

Hæmorrhages in The Later Months Of Pregnancy.

THE occurrence of bleeding from the uterus during the last two months of pregnancy is always a matter of serious import and may present great difficulties both in diagnosis and in treatment. Never a con-

dition to be lightly passed over, it becomes one of the most serious import if the bleeding is due to placenta prævia, and the patient's life may depend upon correct diagnosis and prompt treatment. In general it may be said that hæmorrhage during the last two or three months of pregnancy is almost always caused by separation of the placenta from its site in a greater or lesser degree. Hæmorrhage caused in any other way is quite rare, and the bleeding then usually depends upon a new growth of the uterus. Partial separation of the placenta may occur coincidentally with new growths of the uterus, and, of course, in no way caused by the growth.

We propose to confine ourselves here to cases of hæmorrhage due to partial separation of the placenta. The reason why a normally situated placenta begins to separate from the uterus is not always apparent. Although in some cases a fall or a blow may appear to be the cause, in others there is no accident or injury to which the lesions may be attributable. The only uterine lesions which seem likely to account for this are endometritis and subinvolution. In these conditions the endometrium, and therefore the decidua of pregnancy, is unduly vascular, containing thin walled dilated capillaries which look as if they would require only a very small alteration in the blood pressure to make them rupture. It is quite unlikely that any foetal condition would dispose to separation of the placenta. On the other hand, we have no difficulty in understanding why a placenta situated in the lower uterine segment must separate as soon as the internal os begins to open up under the influence of uterine contractions. As the uterine contractions do commence to open the internal os as early as the sixth month in some instances, it is clear that a placenta prævia may give rise to hæmorrhage as early as this. Given that hæmorrhage more or less has occurred, the question at once arises whether the condition is accidental or unavoidable hæmorrhage, or, in other words, whether the bleeding is from a normally situated placenta or from a placenta prævia. To find this out a very careful examination is necessary. If the lower pole of the foetus is the head, and it does not sink into the brim of the pelvis along with the lower uterine segment, there is at least a suspicion that the placenta fills the lower segment and prevents the foetal head descending. It is practically an impossibility to palpate the placenta from the abdomen. By the vagina with a *closed cervix* a placenta prævia may be suspected if there is a great thickness of tissue between the examining finger and the presenting part, especially if this is more marked on one side. Naturally, if the cervix is open, a placenta prævia can actually be felt if any part of it is near enough to the os for the finger to reach it. If, however, the os is closed, and a diagnosis cannot be made, what is to be done next? If we gradually insinuate the finger through the os, we shall be able to detect the placenta if within reach, but if it is not in reach then the case may be one of partial separation of a normally situated placenta in which possibly no further hæmor-

rhage will occur, and yet our manipulations will cause labour to come on. Consequently we may be in a dilemma in these cases; in some we *must* terminate pregnancy (placenta prævia); in others judicious treatment may stave off labour and permit of the pregnancy going to full term, and yet if we bore the finger through the cervix for diagnostic purposes we shall probably terminate all alike. No definite law can be laid down in such cases; we must be guided by the hæmorrhage, its amount and its character, and whether it is repeated or not.

If a patient has repeated hæmorrhages in spite of rest in bed and sedatives, we are justified in dilating the cervix enough to admit the finger for diagnostic purposes. The gravity of the case may be put thus, that a woman with placenta prævia is never safe from the possibility of death from hæmorrhage until she is delivered and the uterus is under control. Supposing the absolute diagnosis of placenta prævia is made, what is best to be done? We can assume that the cervix will at least admit one finger, and there must have been uterine contractions to cause the separation of the placenta: consequently we have the two desiderata for a satisfactory delivery—uterine contractions and commencing dilatation of the os. What we have to provide for is complete dilatation without further loss of blood.

Without any doubt the safest way for the patient, and the one which gives the child the best chance, is the introduction of Champetier de Ribe's hydrostatic bag. The objection to it is its perishable nature. This is a much more important criticism of it than the usual one—namely that it displaces the presenting part. The bag, when not in use, *must* be kept partly full of water and blown out fairly tight with air. It *must* never be folded up. If blown out and kept in a moderately warm place, and occasionally taken out and handled, the bag will keep serviceable for a very long time. The superiority of the bag over version is manifest, for it can be put in through an os uteri which only admits one finger, it stops the hæmorrhage, it stimulates the uterus to contract. The half breech after version will also accomplish the latter two desiderata, but the patient may lose a fatal amount of blood whilst performing the version. Version cannot be done unless two fingers can be passed through the os, and even then is by no means easy for the man who does not encounter many obstetric emergencies. There is usually no difficulty whatever in putting the bag into the uterus, and when once there and filled, the patient is practically safe from death from hæmorrhage. Moreover, any properly made bag can be boiled.—*The Hospital*.

DERMATOLOGY.

The Itch.*

BY

DOUGLASS W. MONTGOMERY, M.D., SAN FRANCISCO.

The two chief symptoms of the itch are: Itchiness and the burrows of the itch mite. The accessory or secondary symptoms are: Papules that are usually excoriated; vesicles filled with a transparent crystalline fluid, and which arise directly from the sound skin and have no inflammatory base, and are situated principally on the fingers and hands; pustules, with large ecthymatous crusts; and scratch marks.

The itch may be complicated by urticaria, impetigo, ecthyma, vesicular eruptions, pemphigoid bullæ, eczema, lichenoid eruptions, furuncles, abscesses, lymphangites and adenites.

The itchiness is usually well marked, and frequently sets in at night on retiring. The patient tosses on a distressful bed until the early morning, when he gets a little sleep, and so on night after night till worn out and hollow-eyed with fatigue. With people particularly sensitive to the mite, the itchiness continues during the day also, and many a complaint is made of dignity deeply wounded by an uncontrollable desire to scratch.

The burrow or run is made by the female in the lower layers of the cornified epithelium of the skin. It can be seen as a rough, curved furrow, sometimes running over a papule, sometimes having a papule or pustule at one end. Frequently the burrow is black from dirt that settles in its rough surface. It is said that the feces of the animal deposited along the "run" also blacken it, but it is doubtful if they are ever present in quantity great enough to have this effect. These runs are usually best seen on the anterior surface of the wrists, or on the neighbouring volar surface of the palms, or between the fingers.

In those in whom the disease is very light and causes only a few vesicles between the fingers, filled with a clear fluid and arising from a non-inflammatory base, the burrows may be easily overlooked and the affection may be considered a transient irritation. Where pustules are found on the hands and wrists of an adult, a painstaking search should always be undertaken to find the burrows and the itch mite, as the eruption is so likely to turn out to be that of the itch. In fact, in every eczematous or itchy disease of the hands and wrists, it is well to think of the possibility of the itch mite as being its cause.

* Abstract of a paper read before the Alumni Association of the Medical Department of the University of California, April 10, 1908.

As a patient stands before you even the locations of the eruption are characteristic; on the hands, at the wrists, at the axillary folds, on the belly, on the penis, with the face clear of trouble. Then, as the patient wheels round, the back down as far as the loins is seen clear of eruption, with a papular outbreak on the nates and in the folds just below them, and a rash in each popliteal space. There are also over the elbow tips dirty, heaped-up, irregular crusts, quite different from the well circumscribed buttons of psoriasis. As before mentioned, the nipples in women are frequently affected. If a papular impetiginous eczema occupies the above-mentioned sites, even if burrows are not found, the diagnosis of scabies may be made.

In regard to differential diagnosis, a dermatitis among cement-workers, caused by the very active chemicals in cement, must be considered. During the past few years cement has grown more and more in favor as a building material, and physicians must expect to encounter an increasing number afflicted with this dermatitis. It is particularly apt to give rise to a crusted eruption between the fingers, that strikingly resembles that of scabies.

To my mind, the treatment of scabies as given in the text-books is too rigorous. The parasitocides themselves are irritating, and when applied to the raw lesions on the skin produce a variety of discomforts. When, in addition, these parasitocides are combined with such ingredients as soft soap and carbonate of potash, with a trifle of chalk added to the ointment to make it gritty, the patient feels that the adjective "unctuous" is not applicable to the composition in question.

The principal parasitocides used for killing the sarcoptes are sulphur, betanaphthol, balsam Peru, creolin and styrax. Epicarin and petroleum may also be used. A simple sulphur ointment, if intelligently applied, and for a long enough time, kills the parasite, and usually with little inconvenience to the patient. As remarked by Malcolm Morris, even the sulphur ointment of the British Pharmacopœia ($\frac{1}{4}$) is too strong, and a half a dram or a dram of sulphur to an ounce of lard is quite strong enough. The patient should first take a hot bath, with plenty of soap, and then be directed to rub the ointment particularly into the favorite locations of the parasite for nine successive nights. During the whole course it is better to wear a full suit of wollen underwear, so that the ointment by getting into the underwear may be returned to the skin and rubbed in with every movement of the body. The patient should therefore be directed to wear the same undershirt and drawers during the whole nine days and nights of treatment, only taking off the garments to rub in the ointment.

In such a treatment it is particularly necessary to rub the ointment well into the hands and wrists, as these do not receive the benefit of the constant application of the salve by the clothing. In women it must also be remembered that the drawers, being open at the back, do not come well into contact with the gluteal folds, which should, therefore, receive the same special attention as the hands. Although the ointment is only rubbed in to the points of election previously spoken of, yet these points are so widely distributed that the underwear spreads it over the entire clothed body and limbs. Furthermore, it makes a better impression on the patient, and one is more apt to get one's orders carried out if these certain points are explicitly designated for attention.

I have seen repeated failures to cure because of the treatment being confined to one or two localities where the eruption was most marked. In all cases, therefore, a general treatment for the itch must be instituted, and at the same time any severe local inflammations may be controlled, for example, by starch poultices, to which is added about 5 per cent. of boracic acid powder. At times we have to treat a patient for scabies who is suffering from a broken limb, and find the beasties quite at home under the restraining splint.

Balsam Peru is an excellent remedy for the itch, and it is often used in the same ointment with sulphur, as, for example :

R.
Sulphuris precipitati
Balsami Peruviani a a dram. iii
Lanolini
Vaselini a a oz. iss
M.

In cases where, as in infants or in severe local dermatitis, great care must be taken not to injure the skin, it is often desirable to use Balsam Peru alone, as in the following :

R.
Balsami Peruviani 1 to 2 oz.
Lanolini
Vaselini a a 1 oz.
M

Julien highly recommends the method which he saw used in Italian clinics, of painting patients with balsam of Peru without any preliminary baths or other preparation. It is best applied at night, and followed in the morning or later by a bath. It usually causes no irritation whatever, and is effective. It should not be forgotten, however, that in rare instances balsam of Peru produces violent dermatitis.

Matzenauer gives the following directions in regard to the application of balsam Peru or styrax: A hot bath with plenty of soap should first be ordered, and after the skin is perfectly dry the balsam Peru is to be well rubbed in with a piece of flannel. As it easily spreads, a very small amount, 8 or 10 grams, according to Mosler and Piper, is enough for each rubbing. The application should be made twice a day for two succeeding days. The patient should neither bathe or change his underclothing for four or five more days, after which a bath is taken. The under-garments may be thrown away, as they are rendered unwashable by the balsam.

In the same manner styrax may be applied, prepared according to the following formula :

R.
Styracis liquid. 25.00
Spts. vini. rect. 10.00
Ol. oliv. 65.00

M.

Or the styrax may be combined with balsam Peru.

R.
Styracis liquid. 80.00
Balsam. Peru. 20.00
Spts. vini. rect.
Glycerini a a 16.00

M.

Although sulphur, balsam Peru, and styrax are excellent remedies for scabies, yet there are other fine agents, such as creolin and betanaphthol.

An ointment composed of :

R.
Betanaphthol 10.00
Lanolini.
Vaselini a a 75.00

M.

may be used in the same way as a sulphur ointment. Betanaphthol has been known, by absorption, to irritate the kidneys, so that one would hesitate to prescribe it when the patient is suffering from Bright's disease, and in any case due care should be taken in using the remedy.

Through Dr. Werther, of Dresden, I first became acquainted with the use of creolin who uses it in the following combination:

R.
Creolin 10.00
Saponis viridis 30.00
Adipis benzoati ad 100.00

M.

S.—Rub in morning and evening.

I have used it, leaving out the soft soap, and have found it a most satisfactory remedy.

In my personal experience, as I have previously indicated, I have found the ointments as usually recommended for the itch too severe, and have preferred to treat my patient a longer time and less drastically, both to my contentment and to theirs. Another modification I have found most comforting is to change the parasiticide during the treatment; to use a sulphur, balsam Peru ointment for three days, a betanaphthol ointment for further three days, and a creolin ointment for the remainder of the time. In this way, if a person be delicately sensitive to sulphur and gets a commencing sulphur dermatitis, this will subside under betanaphthol, and before the betanaphthol has time to irritate severely, it, in its turn, is discontinued, and creolin is used.

In many instances a dermatitis caused by sulphur can be controlled by a judicious use of talc powder or of Lassar's paste. A good formula for Lassar's paste is:

R.	
Acid. salicyl.	gr.xx
Amyli.	
Zinci. ox.	aa oz. ss
Glycerini	oz i
M.	

S.—Apply twice a day.

At times a pruritus, or an urticaria, or an eczema, may persist long after the scabies is cured. These obstinately annoying eruptions may frequently be controlled by Boeck's paste, to which is added ten per cent. of liquid carbonis detergens. The formula reads as follows:

R.	
Liquoris carbonis detergentis	30.00
Amyli.	
Talc.	c c 40.00
Glycerini	20.00
Gummi Arabici	1.00
Liquoris plumbi subacetatis	4.00
Aquæ	200.00

M.

S.—Use as a lotion two or three times a day.

The patient's underclothing should all be boiled; this is disinfection enough. I have never found it necessary to disinfect the outer garments, with the exception of gloves. As for the gloves, that is an important matter, and orders should be given to search out industriously all the gloves in the house, burn those that are old, and dust sulphur

powder into the still useful ones. Gloves, in a disease that shows such a predilection for the hands, should be admirable carriers of infection although I have never personally found them to be so. Julius Heller thinks it would be wise for the public health authorities to disinfect gratis the dwelling of the poor that are infested with any of the animal parasites, such as pediculi and acari. Several other remedies besides sulphur, betanaphthol, balsam Peru and creolin have been advised for scabies. Epicarin is apt to be quite irritating to the skin. Petroleum is so nasty and may cause such severe irritation of the skin that it is only used in the very poorest practice in poor countries.

Ichthyol has been used in baths, but such a quantity has to be employed as to make treatment unnecessarily expensive; furthermore, the method has no special advantage, except that it does not irritate the skin. I have never used ichthyol as an antiscabitic. Franz Nagelschmidt recommends theophinol, a sulphur derivative, to be used in baths and has a salve. Michel Steiner speaks favorably of tadermasan in the treatment of scabies. Walter Schneider uses anthesol as a substitute for tar to control the itching in scabies.

As I have never employed theophinol, tadermasan or anthesol, I cannot speak either for or against their use.

The principal object of this paper is to ameliorate the condition of those having the itch by modifying the rigors of treatment. Those dear scabby ones deserve consideration, at our hands, for notwithstanding their torments, they are a good natured lot. Many diseases tend to sourness, and to the nursing of wrath against the world and especially against the physician who endeavors to help them. This is rarely the case with those having the itch. We ought, therefore, to take especial pleasure in lightening their burdens. I often think of the kindly Hippocratic maxim: "We must never do our patients any harm," and in the case of scabies, it might be enlarged to say with Rudyard Kipling, "and not afflict them with any of the unnecessary hells."—*The Canadian Practitioner & Review*.

OPHTHALMOLOGY.

A Case Of Blueish Discolouration of the Conjunctiva from an Indelible Pencil.

Aaron Brav (*N. Y. Med. Jour.*, Jan. 2, 1909) reports the case of a bookkeeper who, while sharpening an indelible pencil had a small piece of the lead get into the conjunctival sac, promptly discolouring the eye. When Brav saw the case shortly afterwards he found a slight laceration

of the conjunctiva of the lower lid, and the conjunctiva of this lid and of the globe as high as the lower edge of the cornea was a dark purple color. The patient being very anxious to know whether this would disappear, inquiry was made of a reliable chemist as to the chemical nature of the indelible lead and its possible reaction with the tissues of the body. The information was obtained that the indelible pencil contained the aniline dyes and that no special reaction occurred between it and the body tissues whereby insoluble salts were formed. A wash of sodium biborate was given the patient and on her return the following morning no trace of the stain could be found, the patient stating that the eye was clear by six p.m. the previous day. The author reported the case for the benefit of other physicians who might in the future be called to treat such cases.—*The American Journal of Ophthalmology*.

ABSTRACTS FROM MEDICAL LITERATURE.

BY

J. F. SHOEMAKER, M.D., ST. LOUIS MO.

Immediate After-Treatment of Patients Operated on for Cataract.

(WITHOUT BANDAGE).

J. W. Scales (*Tr. A. M. A.* June 22, 1907) believes that better results are obtained and the patient is more comfortable if no bandage is applied after the extraction of a cataract. He makes an ample conjunctival flap in making his incision, which helps to prevent infection by its quickly closing the wound. For the first dressing he applies a double layer of moist bichloride gauze and protects the eye by the use of a wire screen applied over it. After six hours the gauze is removed and a drop of atropin solution instilled. The patient is permitted to sit up throughout the convalescence. He suggests the following reasons for not using a bandage:

First.—The bandage interferes with natural drainage and brings about a retention of secretions which is to be avoided.

Second.—The bandage interferes with uniform pressure on the wound and ball of the eye, such as would be maintained by the natural position of the lid itself.

Third.—It creates a feeling of discomfort and restlessness, which interferes with the healing process in that it increases the involuntary mobility of the eye.

Fourth.—It is a factor in producing entropion of the lower lid, which in many cases is exceedingly difficult to avoid.

Fifth.—It is a factor in producing conjunctivitis, iritis and cyclitis.—*The American Journal of Ophthalmology*.

Value of Sweating in the Treatment of Internal Affections of the Eye.

Howard F. Hansell (*Penn. Med. Jour.*, August, 1908) believes that this method of treatment is not employed as frequently as it should be in serious affections of the eye. Owing to the depression which sometimes follows the use of jaborandi (pilocarpin) he rarely ever uses it, but depends on the application of dry heat. His method is to first cover the mattress of the bed on which the patient lies with a rubber sheet and to wrap the patient with three blankets. Receptacles filled with hot water are then placed on each side of the patient from the feet to the shoulders and as close to him as can be permitted, and the patient given a cup of hot fluid, tea by preference.

If the hot water applications are continued the sweating should begin very promptly. The sweat glands are stimulated by giving a glass of ice water to drink a half hour after the sweating has begun. The head should be wrapped with a wet towel or an ice cap be worn. The duration of the sweating should depend on the condition of the patient, Hansell limiting the process to one and a half hours at most. Following the sweating the body should be dried and rubbed with alcohol and the patient placed in a dry, warm bed where he should remain for several hours, it being best to give the sweat the latter part of the afternoon and patient remain in bed until the following morning. The number and frequency of the sweatings must be regulated by the severity of the disease, the physical condition of the patient and the manner in which he reacts to the treatment, as well as the effect the treatment has upon the eye condition for which it is employed. While the patient's temperature may rise to 102° or 103° F. by the end of the sweating it usually returns to normal in two or three hours; if it does not, the treatment should not be repeated. Should the temperature fall much below normal, strychnin or some other stimulant is to be given.

Hansell and others whom he quotes believe that this treatment may be of service in cases of opacity of the vitreous and in alcohol and tobacco amblyopia. In the latter conditions the tobacco and alcohol must be withdrawn and strychnin given in addition to the diaphoresis.—*The American Journal of Ophthalmology*.

THE ANTISEPTIC.

JUNE, 1909.

Medical Lectures and Examinations.



PROFESSOR Sims Woodhead of Cambridge delivered an address at the opening of the present session of the Medical Faculty at Toronto. The subject of his discourse was: "The University in relation to the Study of Medicine." Professor Woodhead had a good deal to say about Medical lectures and Medical examinations. He can speak with authority on those subjects, for he has had considerable experience both as a teacher and examiner in some of the chief centres of Medical education in Great Britain. He began at Edinburgh. Then he went to London. Now he is at Cambridge. And in all the three cities his connection with Medical education was very intimate. Many thousands of Medical men must have been examined and passed through Professor Woodhead's hands. The present writer is one of those who passed through Professor Woodhead's ordeal in Pathology at Edinburgh in years gone by. But, all the same, we are unable to agree with all that the learned Professor said to the Medical Faculty at Toronto.

Professor Woodhead condemns the long course of systematic lectures because he thinks that they are neither desirable nor necessary. "Lectures are of supreme value" says Professor Woodhead "in bringing the mind of the student into close touch with that of the teacher, but for the mere setting forth of facts they are worse than useless." That, we should think, depends very much on the lecturer. If the old system of courses of systematic lectures as given in Edinburgh appears to be out of date now, is it not partly due to deterioration in the quality of the lecturers? The present generation of Professors may be as efficient medical men, but are they as good lecturers? Professor Woodhead himself admits that every sentence of Lord Lister's lecture was an inspiration. Quite so. And Edinburgh can boast of a very large number of Professors whose every sentence was an inspiration to the thousands of Medical students who own the University of Edinburgh as their Alma Mater. Can anything be more vivid or impressive than the lectures and demonstrations of Sir William Turner in Anatomy? Can any Text-book or Clinical teaching ever take the place of the learned and lucid lecturers of the late Sir Thomas Grainger Stewart? Have the principles of Physiology ever

been better expounded to young Medical students than was done in the long course of lectures which used to be delivered by the late Professor Rutherford? And is there any Text-book which can give ampler explanation of the principles of Pathology than is contained in the systematic lectures of Professor Woodhead's old master—Professor Greenfield of Edinburgh. No. We cannot accept the view that the old systematic lectures are useless. We rather deplore the deterioration of the quality of present day lecturers. Our contemporary, the *Canada Lancet*, writing on this subject, observes:—"We would offer here a test. Any teacher who cannot make his lectures sufficiently interesting and instructive to attract the students to his class room, should be called upon to discontinue his lectures. Students know a good thing and will go where there is fruit to be found. He is a fool, indeed, who would waste his time trying to gather figs from thistles. A good lecturer will always find his following among students * * ". That is precisely the way to find out good lecturers. And that is almost the system adopted in the Scottish Universities. There are the University professors and any number of extra-mural lecturers, and the principle of struggle for existence and survival of the fittest is practically demonstrated. But we would not go so far as to compel an unsuccessful lecturer to stop lecturing. Who knows that in course of time he may not develop into a great lecturer? There is an old story told of Professor Crum Brown of Edinburgh. When that professor in his younger days started as an extra-mural lecturer his class was of the smallest possible dimensions. One day at an hour when he ought to have been lecturing he was seen walking down Princes Street by Sir William Turner who asked him if he had no class that day. "No," said Dr. Crum Brown, "my class has gone to attend his mother's funeral." And yet this extra-mural lecturer who began with a class of *one* afterwards became one of the most popular professors Edinburgh has ever had. It is by keen and intelligent competition that the best qualities of the competitors are brought out. And the worst thing that can happen to any human being blessed with the normal amount of brain matter is to be made a salaried official. Degeneration set in when the Edinburgh Professors were made salaried officials. In our good old days their income was derived from the fees paid by their students. The more attractive their lectures, the more money they got. Now it is all changed, with the result that Professor Woodhead, one of the best products of the old system of Edinburgh teaching, is strongly deprecating the courses of systematic lectures.

And what about Medical Examinations? The eccentricities of examiners have been the subject of complaint all over the world wherever examining bodies exist. "We have known examiners who set papers," says the *Canada Lancet*, "or gave oral questions that were nothing better than foolish puzzles." So have we. But what is the remedy? The Edinburgh student who was asked by his examiner how he would proceed to perform

a certain exceedingly difficult and almost unheard of operation and who replied that he would call him (the examiner) in consultation promptly got his "blue paper" politely requesting to come up again at the next examination. Professor Woodhead has some very good advice to give as to how to select and whom to select as examiners. But, however carefully chosen, it is, in our opinion, unfair to leave the fate of the students to the caprices of a single individual. There ought to be two examiners in each subject and they ought to conduct the examinations before a jury of three or four medical men specially chosen for the purpose by the examining body. That is the only means of ensuring a fair and efficient test. We refrain from saying anything about the Medical examinations in India because we do not want to use unparliamentary language in the pages of this journal. We can realise the troubles and anxieties of a student going up for examinations, although it is longer than we like to recall since we have ourselves gone through the ordeal of an examination. But we remember, as if it were yesterday, the delight with which we joined in the chorus of men who had got through the final:—

"Final men from all the world back to life again,
Rolling down to Princes Street, ain't we raising Cain?
Have a final fling, friends, 'fore we pass away—
We've been grinding long enough, and we're through to day!"

Yes. That was pleasant enough. But what about the victims of eccentric examiners?

CORRESPONDENCE.

Treatment for Scorpion sting.

SIR,

I request you will kindly allow me a corner of your journal for the publication of the following results for the general information of my professional brethren with a view that they may, after thorough and patient trials, give wide publicity to the same in their practice.

2. Requirements for the Report of the results of the treatment with Potassium Permanganate for snake bite cases, submitted to Government every year by all medical officers in charge of hospitals and dispensaries, afforded me opportunities to make a series of trials with Potassium Permanganate in scorpion sting cases, and the results I obtained invariably in the great majority of cases have been so marvellous that I am encouraged to place these facts before the profession through your journal and other channels of communication, with a view that the same be subjected to their careful scrutiny and patient trials before it could be finally adopted as a specific treatment by them.

3. *Modus Operandi.*—It is usual to find a patient resorting to the hospital for treatment for scorpion sting, having been treated domestically with some kind of paste, unction, &c., applied over the part stung, which requires primarily to be thoroughly washed and cleaned. The part should, therefore, be gently washed with lukewarm water. A fine needle is selected and sterilised, and with it, multiple fine punctures are made on the part stung which can be easily made out both by the information as to the spot furnished by the patient, and in the case of children and other patients in state of great mental confusion and agony by the part being found swollen and dotted with minute points of perspiration, until a few drops of blood or bloody serum could be squeezed out and the finely powdered Potassium Permanganate is vigorously rubbed down into the punctured parts. At times a few drops of clean water let over the salt while being rubbed will ensure ready absorption and the relief afforded is remarkably rapid, much to the joy of the suffering patient. Care should be taken to see that the salt is fresh and that it is absorbed. The virus contained in the venom of scorpion sting is believed to be Formic Acid.

S. ARLEND.

ACKNOWLEDGMENTS.

We acknowledge, with thanks, receipt of the following journals:—

The Polyclinic. The Bristol Medico-Chirurgical Journal. The Medical Brief. The International Journal of Surgery. The California Medical Journal. The American Journal of Clinical Medicine. The Dietetic and Hygienic Gazette. The Good Health. The Indian Medical Gazette. The Practical Medicine. The British Journal of Children's Diseases. The Sanitary Record and Journal of Sanitary and Municipal Engineering. The Northumberland and Durham Medical Journal. The Canada Lancet. The American Journal of Ophthalmology. The China Medical Missionary Journal. The Medical Review of Reviews. The Post-Graduate. The Therapist. The Canadian Practitioner and Review. The Australasian Medical Gazette. The Caledonian Medical Journal. The Montreal Medical Journal. The Louisville Monthly Journal of Medicine and Surgery. The Monthly Cyclopædia of Practical Medicine. The Buffalo Medical Journal. The Ophthalmoscope. The Dental Era. The Interstate Medical Journal. The Medical Notes and Queries. The Calcutta Medical Journal. Folia Therapeutica. The All-India Hospital Assistants' Journal. The New York State Journal of Medicine. The International Therapeutics. The Hospital. The Medical Review. The Medico Surgical Journal.

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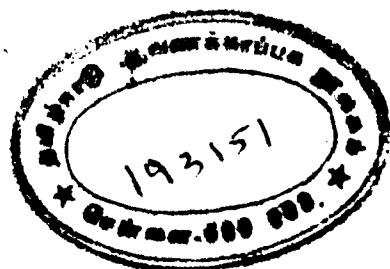
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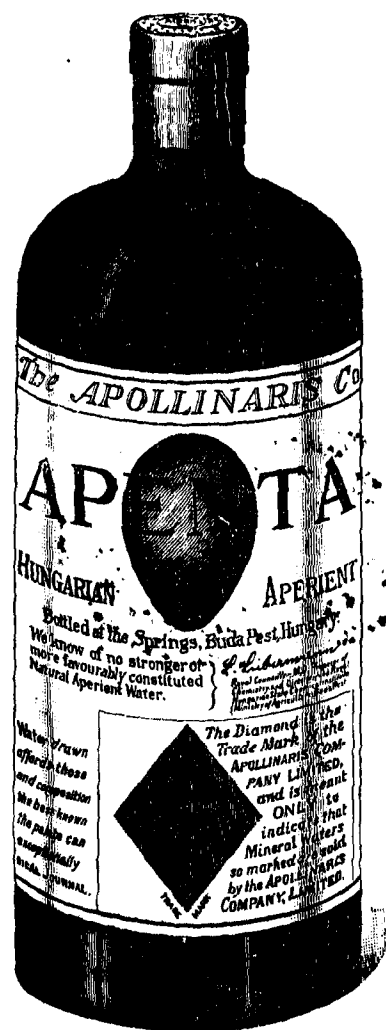
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