The China Medical Journal.

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The China Medical Journal

PUBLISHED BY

The Medical Missionary Association of China.

The Subscription Price for THE CHINA MEDICAL JOURNAL is Four Dollars a year. There are six numbers in each volume.

Articles intended for THE CHINA MEDICAL JOURNAL should be sent to the Editors, who solicit contributions from all Medical Practitioners in China, Corea, Japan, Siam, or elsewhere.
ST. JAMES HOSPITAL, ANKING, CHINA.

South Front and West Face. Men's Department on left. Women's at right.
THE OPSONIC INDEX OF THE BLOOD.

Paper read before the C. C. M. M. A. by Dr. J. G. Cormack.

At the outset of my paper let me state frankly that I have not undertaken the preparation of this paper on "The Opsonic Index of the Blood" because I am an expert on the subject, or because I have long, practical experience of its use, but simply because the Council of the Association thought it would be well that this latest method of diagnosis and treatment of disease should form a subject at one of our meetings, and I was asked to give the paper. It will be understood therefore that though I have spent a considerable amount of time and thought on the subject, I am still as much a learner as anyone here.

To Dr. A. E. Wright, of St. Mary's, London, belongs the honour of working out and bringing to the notice of the profession this interesting and scientific method of treating disease. This he did by a series of careful experiments, and he has been followed during the past three years by many earnest investigators.

It has been known for many years that the white blood corpuscles of the blood can be kept alive outside the body; experiments can therefore be made with living leucocytes in test tubes and so on. Under the microscope the great Professor Metchnikoff watched some leucocytes engulfing or swallowing up bacteria by a process which we all know by the name of "phagocytosis." Phagocytosis is at the bottom of all estimations of the opsonic index. Briefly stated, Dr. Wright's discovery consists in the fact that phagocytosis only takes place when the blood has formed a substance which so prepares the bacteria that they can be
ingested by the white blood corpuscles. To this substance he has given
the name "Opsonin," which means, "I cater for."

These opsonins do not destroy the bacteria, but seem to coat them
in such a way that the white blood corpuscles are prepared to attack
and swallow them. White blood corpuscles, apart from this substance,
have probably no phagocytic power. The object of the treatment
founded on a study of the opsonins therefore is to increase the amount
of this substance in the blood, that the system will be helped to over­
come any bacterial invasion. To treat a case we must therefore know
the opsonic power of the blood, and this quantitative estimation of
opsonins is known as the "Opsonic Index."

THE NATURE OF OPSONINS.

Our knowledge of the nature of these opsonic bodies is, up to the
present time, far from complete, but the points established have been
epitomised as follows:—

(a). The variable factor is present in the serum and, as far as concerns its
quantitative estimation, is independent of the leucocytes.

(b). Opsonins are distinct from those substances which bring about bacteri­
cidal and bacteriolytic reactions.

(c). The opsonin passes from the serum to the bacteria and acts upon them in
such way as to prepare them for ingestion by the phagocytes.

(d). Variations in the number of leucocytes in the blood do not correspond
with similar variations in the opsonic index.

(e). In a large number of infections, specific opsonins can be detected in the
serum.

(f). Opsonins are destroyed by being heated to 60 c. for a few minutes, as
shown by Wright, Bulloch and Dean.

(g). The opsonic power of serum in vitro falls gradually, and even when kept
at 8 c. in the dark, falls to half its original value in about ten days.

The opsonic index practically remains constant from day to day in
the same healthy individual, but Dr. French has noticed that vigorous
exercise, such as a twelve-mile walk undertaken by a person of seden­
tary habit, will sometimes cause rise from 1.0 to 1.2 or 1.3 on the
following day.

When a dose of tuberculin or other bacterial vaccine is injected, it
produces a definite oscillation in the opsonic curve.

At first the index falls, then it rises to a point above its original
level; again it falls, but only slightly, and is then maintained lor
a variable period at this higher level. The first fall is called the
"negative phase," and the subsequent rise the "positive phase." Urwick has noticed that there is sometimes a sharp rise before the
negative phase.
If an inoculation is given during a negative phase, there will be a further fall, and the succeeding positive phase will be long delayed or absent; an inoculation just after or during the positive phase gives rise to a small negative phase, and then a positive phase super-imposed on the first one.

An operation, a dressing, and exercise also give rise to a negative phase, followed by a positive phase.

Possibly massage and the application of X rays, or Finsen light, act similarly. Wright explains these changes as being due to auto-inoculation, and this view is favoured by the occasional occurrence of general tuberculosis after an operation. It has also been observed that nuclein, when injected subcutaneously, and yeast, given by the mouth as one large dose, will give a reaction on the tubercule-opsonic curve similar to that produced by a dose of tuberculin.

**METHOD OF TREATMENT.**

The ideal aim in treatment is to obtain a cumulation of positive phases and to avoid giving an injection during the negative phase. To do this it is necessary to take the opsonic index at regular intervals and to plot out the results on a curve; it is then easy to see at a glance whether the index is rising or falling. In staphylococcal injections the opsonic index can be raised and maintained at a high level, but in tuberculous cases it soon falls again; in spite of this, tuberculous
patients certainly do well under the influence of a properly interspaced series of tuberculin injections.

The clinical aspect of the patient is an untrustworthy guide, although he or she may feel and appear worse during a negative phase and better during a positive phase. In some cases the negative phase is often marked by objective symptoms, for instance, in acne, by a fresh crop of boils, and in gleet by an increased urethral discharge.

**HOW TO TAKE THE OPSONIC INDEX.**

The method by which this is carried out is thus described by Dr. Ronald French, of Guy's Hospital, London, to whom I am much indebted for his kindness in sending me the materials for this work and hints as to how it may best be done.

"Three preliminary operations are necessary, namely:

(a) The collection of 10 to 20 c.mm. of serum from the patient and a like quantity from a normal person, carried out as follows:

Cleanse the lobe of the ear, and at the same time render it hyperemic by vigorous rubbing with a piece of lint saturated with ether. Allow the ether to evaporate, make a small puncture with a surgical needle, and then, by gently squeezing the lobe of the ear, cause a few drops of blood to exude. Collect the blood in a small glass pipette with capillary ends; seal the ends, and when the blood has clotted firmly, centrifugalise, so forcing the clot into the narrow part of the tube and leaving clear serum above.

(b) The preparation of a sufficient volume of human "washed" blood corpuscles, thus: Collect blood (approximately 0.1 cc. for each serum to be tested) from the ear of a normal individual, or of a patient anaesthetised for operation (after cleaning, etc., as detailed under (a)) in a sterile capillary pipette, previously moistened with sterile 1.5 per cent sodium citrate solution and transfer at once to a tube containing some 8 to 10 cc. of the citrate solution. Sodium citrate, it may be mentioned, by removing the calcium salts from the freshly shed blood, completely prevents clotting. Centrifugalise thoroughly to throw down the corpuscles and pipette off the supernatent fluid; then add 10 cc. of sterile saline solution (0.75 per cent) to the corpuscles; shake well and centrifugalise again.

This washing with normal saline solution is repeated with two further changes of the solution, and the cells are then ready for use.

(c) The preparation of a suitable emulsion of that bacterium against which the sera are to be tested.

The preparation of a bacterial emulsion varies somewhat with the organism to be emulsified. In the case of a coccus, saphylococcus, streptococcus, pneumococcus, gonococcus, etc., pour a sterile 0.1 per cent saline over the surface of a six to twelve hour growth in tube culture on sloped agar and shake gently. This produces a turbid fluid containing free cocci and clumps of various sizes; transfer this to a small glass tube and centrifugalise for three or four minutes in order to throw down the clumps. To the experienced eye the opacity of the emulsion is sufficient to show whether centrifugalisation has been sufficiently prolonged, so that it is unnecessary to make a film preparation and examine it microscopically. To prepare a tubercle emulsion, grind up a small nodule of the growth from a glycerinated potato in an agate mortar (which should be moistened previously with a drop
of sterile 0.1 per cent saline) to form a thick milky fluid, then dilute with 0.1 per cent saline, mix thoroughly and centrifugalise as for emulsion of cocci. If a large quantity of tubercle emulsion is made in this manner and sterilised by heating to 70°c. for an hour, it can be kept perfectly well, sealed off either in small glass capsules, or in ordinary capillary tubes such as are used for vaccine lymph. It is important to use 0.1 per cent saline for making emulsions, and not "physiological" (0.75 per cent) salt solution, as the latter frequently causes clumping to take place.

Transfer these four preparations, viz., patient's serum, normal serum, washed blood cells, and bacterial emulsion, each to a separate watch glass or small test tube, and label.

"After making these preparations the apparatus further necessary for the estimation of the opsonic index consists of a number of capillary pipettes with a rubber "teat" or bulb attached to each, an incubator running at 37°c., a number of clean microscopical (3 by 1 inch) slides and some watch glasses. The pipettes should be dry, sterilised and plugged at the large end with cotton wool; the capillary part should be 12 or 15 centimetres long and sealed at the extremity.

"Make a mark with either file or glass-cutter's knife near the sealed extremity of the pipette, break off the end "square" and make a mark with blue grease pencil, about 1 or 1.5 centimetre from the cut end. Now holding the pipette by the rubber bulb, compress the latter between thumb and fore finger, dip the open capillary end into the receptacle containing the washed cells, and, by gently relaxing the pressure on the bulb, aspirate sufficient of the cells to fill the capillary tube up to the pencil mark, admit a short column of air to serve as an index, draw up a second similar volume of blood cells, another air index, and then a third volume of blood cells. In a similar manner add one volume of bacterial emulsion and two volumes of the patient's serum to the contents of the capillary pipette.

Fig. II. Shape of pipette used by Wright.

B C D E F G

"The order in which these fluids are taken up is important, as the washed cells must not be contaminated with either emulsion or serum, and the emulsion must not be contaminated with serum, for, if it were, opsonins might possibly be added to it, and these would then be passed on to the bacteria; a few blood cells present in the emulsion are of no consequence. When all six volumes have been aspirated into the pipette, compress the rubber teat and squeeze them out as one drop on to a slide or into a watch glass and mix thoroughly; the mixing being
done by sucking the drop up into the pipette and squeezing it out again eight or ten times; finally the drop should be sucked up into the pipette, the extremity sealed off in the flame, and the pipette labelled with a distinctive name or number.

"Now prepare a similar pipette with three volumes of washed cells and one volume of bacterial emulsion, but substituting two volumes of normal serum for two volumes of patient's serum. Incubate both pipettes together for fifteen minutes at 37 °C., after which take each in turn, cut off the end, mix the contents once more, prepare a blood film and mark carefully. It is advisable to make two slides from each pipette, as one may be spoiled or broken. The blood films are easily prepared by the slide method: half the drop of blood is placed on a clean slide near to one end and the end of another slide held at an acute angle on the surface of the former, so that the blood runs in the angle between them. By drawing the upper slide in short jerks along the surface of the lower, a thin film is spread out; it is an advantage to have a free edge to the film as the polymorphonuclear cells collect along this edge. Fix the films in equal parts of alcohol and ether and stain secundum artem; those containing tubercle bacilli must be stained by the Ziehl Neelsen method and counterstained with toluidin blue; for cocci, staining for half a minute with toluidin blue gives perfect results.

"Next with a 1-12 inch oil immersion lens, and using a mechanical stage, count and note the number of bacteria in each of the first fifty polymorphonuclear cells that come into the field. The normal serum is taken as having an opsonic index of unity, so that the number found in fifty cells on the normal slide, gives the opsonic index of the patient.

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Each observer counted fifty cells; though the counts differ the averages are fairly approximate; the personal error in counting being the same for the patient's slide and the normal slide.
The Opsonic Index of the Blood.

When several sera are to be tested against one organism, the same control (i.e., the same normal serum) will serve for all.''

In addition to the foregoing, Dr. French sent me the following hints in a private letter:

1. We only use the pipettes once, but they can readily be made by drawing out glass tubing in a gas blow pipe flame.

2. We no longer use absolute alcohol and ether as the fixing re-agent, but use methyl alcohol; the process is quicker, taking only twenty to thirty minutes instead of two hours, and the methyl alcohol can be used again six or eight times, or possibly even more often.

3. Don't use the same lot of stain too often.

4. Counter staining with carbol methylene blue is simpler and more uniform in result than toluidin blue or Leischman. Half a minute in the diluted stain is, as a rule, quite sufficient.

5. Take great care if you warm the fuchsin that it does not get much over 60° C. or the white cells get broken up and drop out from the films.

6. In some forms of centrifuges a very rapid speed can be obtained; in the preparation of washed blood cells do not centrifugalise too rapidly, or the white cells will be broken up and you will be very disappointed to find a series of slides with no or very few white cells in them.

7. There is a new and less troublesome method of doing tubercle opsonins, but I do not know how it will turn out; the emulsion of tubercle bacilli is stained with fuchsin previous to mixing the serum, cells and emulsion together. Phagocytosis takes place all right, but whether the results are the same with this emulsion I do not know. There is one great drawback, namely that the bacilli become deposited at the bottom of the emulsion and have to be very thoroughly shaken up before the emulsion is used.

8. We always make up a large volume of emulsion now and keep it and take out a small quantity when we want it.

"Having by this means got the opsonic index of the patient's blood, the next step is to endeavour to improve that index, so that, if possible, you can make phagocytes take up 200 instead of 100.

CHOICE OF CASE.

"It is not every case that is suitable for treatment by inoculations. No one would dare to inject more poison into a patient who is already septicæmic. Again, a case whose immunising defence is breaking down, as indicated by very marked variations in the index, is unsuitable; if more poison is added to the system, a beneficial reaction cannot be expected. The most suitable cases are those whose index is low, and whose focus of infection is strictly localised, for it is easier and more beneficial to raise a low index than to produce a rise in an index that is already high.''

THE INOCULATION.

"For inoculation, vaccines of known strength must be prepared, as the most satisfactory results are obtained by using vaccines prepared from the organism cultivated from the patient's own lesion and
standardised, so that a given unit of volume shall contain either the dead bodies of a definite number of bacteria, or a definite weight of bacterial protoplasm.

"The vaccines in general use at the present time are simply watery emulsions of bacterial cultivations prepared in a manner somewhat similar to that already described, and, after centrifugalisation, diluted to contain some convenient number of bacteria, e.g., 500,000,000 per c.c., sterilised by heating to 65°C. for an hour, and finally sealed up in capsules, in doses of 1 c.c. till required. For tuberculous cases Koch's tuberculin (T. R.) diluted with 0.75 saline is used; this, like other vaccines, needs sterilising, as living tubercle bacilli are occasionally in the fluid when it is purchased.

"The inoculation must be given with strictly aseptic precautions. It is convenient to use an ordinary sterilised hypodermic syringe and to inject into the loose subcutaneous tissue of the abdominal wall, flanks or shoulders."

RESULTS.

The results as seen at Guy's, have been, so far, very encouraging, in spite of the fact that many of the cases treated were regarded as hopeless from a surgical point of view.

Vaccine treatment, with or without estimation of the opsonic index, is not a means of working absolute miracles, and it must not be supposed that all other forms of treatment at once become unnecessary.

Vaccines stimulate the system in its resistance to infection. Alone it will bring about a cure in but few cases. Other methods of treatment must be used in conjunction with it. So long as a patient has a focus of disease, he is liable to re-infection. It is therefore important that such foci should be removed surgically as completely as possible, but preferably this should not be done until the opsonic index has been raised. It is strongly to be recommended that operations, and particularly those on tuberculous patients, should only be performed during the positive phase following a preliminary injection of tuberculin. The negative phase due to the operation would then be superimposed on a positive phase of the reaction to the injection and would be harmless, whereas, if superimposed on a negative phase due to unobserved autoinfection, the cumulation of negative phases might easily result in general tuberculosis.

Several cases of acne have been quite cured when all other treatment had absolutely failed. In cases of localised tuberculosis great improvement has resulted, so much so that Wright is able to say of his method of treatment: "It is not a question of the achievement of success
SARCOMA OF TESTICLE AND CORD—Extending into abdomen.
Dr. Jeffery's Case.
The tumor contained thin layers of bone and cartilage enclosing pulpy cell-masses and clotted blood. Scrotal tumor was 10 inches antero-posteriorly.
in a certain percentage of cases only; up to the present it has been a question of uniform success."

In conclusion, let me say that though the process of treatment by vaccines controlled by a study of the opsonic index of the blood may appear to be too complicated to be of practical value to busy, overworked medical missionaries, yet we ought not to neglect the study of a method of treatment which has already yielded such splendid results. The day may not be far distant when vaccines of the various organisms will be prepared as calf vaccine is prepared now, and the times between the negative and positive phases following injection in each specific vaccine so well worked out that in many cases the necessary estimation of the opsonic index may be dispensed with. Till then, however, there must be careful watching of the opsonic indices if we are to attempt treatment on this line.

It would be well if in all our hospitals we could have a man trained to do this work, or, what is perhaps more feasible, laboratories in large centres, where the clinical work might be carried out and the information given to the doctor, so that he can go on with this treatment with scientific certainty.

P. S.—The diagram and most of the facts have been taken from Dr. Ronald French's paper, which appeared in the Practitioner of July, 1906.

A RARE TUMOUR OF THE TESTICLE

By Dr. John E. Kühne, M.B., C.M., Tungkun.

Allow me to send a specimen for the museum, at the same time giving you the clinical history of a boy whose trouble is here depicted. The parents, people from the country, are young and show no trace of syphilis; they have had three children: one who died of plague when four years old, another, who lived a few days only, and this one nearly four years of age. At birth the scrotum or rather the testis was of the size of a small orange, not hard says the mother; the swelling enlarged gradually, and this year in February the inguinal glands got involved. The child, nursed by his mother, is well otherwise. The penis is easily felt and well seen in the photo; the black line being the prepuce. The growth gave an elastic feeling, and being somewhat transparent let us at first think of an infantile hydrocele.

A puncture was made on the 22nd day of June and some bloody serum evacuated. A second one was made three days after; this time
introducing the needle deep into the tumour; some pus came through the canula which microscopically showed crystals of cholesterol.

The parents wanted to have an operation performed, and Dr. Eich, who for a short time was prevented from using his right hand, asked me to operate. We at first made an incision over the inguinal glands. Having found and tied the spermatic cord we removed the glands as thoroughly as we could; prolonging the incision downwards the testis was easily removed as a whole, leaving the left testis in situ. The child at first did well, the wound of the scrotum healing rapidly; the wound over the glands, however, gave some trouble, and when the child left the hospital some twenty days after, a swelling was felt, proof of a recurrence of the growth. We have not examined the growth and would be very grateful to get your opinion about it. The specimen has been for a night in alcohol and has shrunk somewhat; afterwards it was put in formaldehyde. Hoping it will reach your hands undamaged, I make my best wishes for the success of your work and of the Journal.

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REPORT ON DR. KUHNE'S TUMOR SPECIMEN.

The specimen consists of a regular oval tumor of the entire testicle, about six inches long by three and a half inches broad and circular in the transverse section. On longitudinal section there is first a thickened serous covering, next a half inch or so of organized blood clots and within this again, series of two or three thin shells of cartilage and some true bone, and including between them blood vessels, testicular tissue, sarcomatous patches and epithelial detritous, and in the upper half some matted short black hairs. The cord is thickened and adherent to its surroundings and especially to some of the inguinal glands, which on section show patches of pigmented round-celled sarcoma. For confirmation of this point, a section was submitted to Dr. Alfred Moore, of the Shanghai Health Office, who reports as follows:

HEALTH DEPARTMENT OF THE SHANGHAI MUNICIPAL COUNCIL.

Laboratory Report No. 5,297.

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<th>TO DR. W. H. JEFFERSYS.</th>
<th>SPECIMEN RECEIVED.</th>
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Specimen tumour from inguinal region.

This tumour presents the appearance of a pigmented round-celled sarcoma. May there not have been some sarcomatous elements in the associated testicle tumour? Stained specimen herewith.

A. Moore,
Asst. Health Officer.
TERATOMA (DERMOID) OF THE TESTICLE—Dr. J. E. Kuhne's case, Tungkun.

TERATOMA OF THE EPIDIDYMIS—Dr. A. F. Cole's case, Ningpo.
A Rare Tumour of the Testicle.

A photograph of the testicular tumor, showing the structure quite plainly, is submitted. Note particularly the central bone and cartilage enclosed cavity which contained soft epithelial detritus.

For comparison a photograph of Dr. Cole's specimen (see his own report thereon below) in which the testicle proper is not involved. Also a photograph of a case under my own care, which was inoperable at the time of first inspection, but on incision proved to consist of sarcomatous tissue and thin bone plates as in Dr. Kuhne's specimen.

W. H. Jefferys.

DERMOID OF TESTIS.

Case of Dr. A. F. Cole, Ningpo.

Patient aged thirty-six, right side of scrotum from childhood larger than left. Nine months before admission to hospital knocked himself on side of a ferry boat, resulting in chronic discharge from a sinus at bottom of scrotum ever since.

Excised, together with adherent skin.

On subsequent examination the body of testis and cord quite normal. Evidently dermoid of paradidymis from facts:—

1. Flat bony plates lining walls of cyst.
2. Moveable protuberances like tips of fingers.
3. Thick yellowish material (sebaceous type).
4. History of congenital origin, or certainly over thirty years.
5. Testis normal.

No microscopic examination was made of the cyst walls before the specimen was deposited in the Pathological Museum of the China Medical Association. No hairs were found.

In Mr. Bland Sutton's work on "Tumours, Innocent and Malignant," fourth edition, page 533, the following is found:—

"The rarity of testicular dermoids may be gathered from the fact that as far as I can ascertain, during the last twenty-five years three examples have been recorded in England, and of these one came from India, and another from Central China was sent me by Dr. Booth, and is now in the museum of the Royal College of Surgeons."
I. THE JOHN G. KERR REFUGE FOR INSANE.

[The writer, by request, will try to present a series of articles upon the work for insane as carried on here, going somewhat into detail in the hope that any little experience already gained may be of help to others who may have in mind the opening of similar institutions elsewhere in China. The two subsequent papers will be entitled respectively: Forms of Insanity in South China, and The Treatment of Insanity.]

THE OPENING OF A HOSPITAL FOR INSANE,
ITS FOUNDER AND ITS NAME.

This institution was opened in 1898 by John G. Kerr, M.D., LL.D., near the close of a long life spent for the Chinese in loving, active service as a medical missionary. Dr. Kerr was an American and was connected with the Presbyterian Board, North. But a work for insane being in a path until then untrodden in China and its need at the time appreciated by but few, was necessarily undertaken as an entirely independent enterprise, and thus far it has so remained. After his death the founder’s name was added to the original name, “The Refuge for Insane.”

It being a pioneer work, it is not strange that the experience of succeeding years should have shown defects in the first plans and how some of them might be remedied.

The name “Refuge” is unhappily chosen. The institution is much more than a place to which the insane may flee for protection, and it gives a wrong impression as to its aim. Rational means are used, looking directly toward the cure of the acute cases. It were better named “Hospital,” since this term is everywhere, even if arbitrarily, used to designate a place of healing. Throughout New York State and in some other places in America the name “Hospital for Insane” has been substituted for the old term “Asylum for Insane,” as being more correct and as having a pleasanter sound in the ears of the friends of the inmates. In Germany the term used is: Institution for Healing and Nursing.

LOCATION.

The hospital is located across the river from the city of Canton, at Fong-tsün. Nearly all the patients are brought by boat.

An institution of this sort should always be situated somewhat removed from a city or at least in a place where abundance of land may be secured. This is for reasons which will appear under the next heading. The distance should, however, be such that friends can, without too great difficulty, reach the place; because it will be found that
THE JOHN G. KERR REFUGE FOR INSANE, CANTON, CHINA.
in certain cases people who have friends at the hospital are exceedingly solicitous about their welfare, and perhaps suspicious, and will wish to come often to see how they are being treated. We have from the first made it our policy to allow them to come at any time, requesting only that they do not come on the Sabbath. This policy has been found to be a wise one, especially during the first years. Now, however, while not forbidding it, the friends are sometimes advised and requested to come only occasionally and the reasons explained. They usually comply without objection.

**Grounds.**

The first purchase of land amounted to about four and half English acres. The patients having largely increased in numbers during the last year, it has seemed wise to add to this. Already some small pieces lying adjacent have been procured; and we hope to have within a year about seven acres in all. This is not much land for such an hospital. It is almost absolutely essential that there be large grounds and for several reasons.

1. Many of the patients are there for life and must be made as comfortable as is possible.
2. But it is particularly the protection of the insane from inconsiderate outsiders which demands that the grounds be large enough to allow of the buildings being quite removed from places from which annoyances might come. We have been much troubled here because of the near proximity of our buildings to land which has recently become a public tramping ground. Many men and even some women and children gather at this place to watch the insane, especially the women, who come to the windows, being entertained by their gestures and their scolding and impure or otherwise excited talk. In some cases these people have thrown up sand and stones into the windows and in other ways excited the patients to talk and scold. Again, matches have been stuck into the end of bamboos and passed over the wall to patients at the windows. Again thoughtless people have shouted some little distance across the grounds: "Crazy woman," which epithet is exceedingly distasteful to those who are not demented and who are conscious, as many are, of their condition. The patients should be saved from these annoyances, because they must tend to make their condition worse. Hence the plea for a location outside the city, where abundance of land can be procured and the buildings placed well away from the boundaries.

3. Another advantage in having large ground is that the cottage system may be used. This consists in having smaller, scattered, home-like buildings instead of one large institution-like edifice. For the sensitive patients this is more agreeable. The noisy patients can be thus also far separated from those who are quiet.

4. Then again, the inmates of these institutions are likely to grow in numbers as the Chinese learn more and more their value. And it may turn out also that, just as in the home lands, the actual number of the insane is increasing.

5. Large grounds further afford opportunity for flower and vegetable raising, which provides work in which capable patients may busy themselves.
Thus far our men and women have had the grounds in common. But we hope soon to get hold of an adjacent piece of land which will give the women an entirely separate running place. This is as it should be, the men and women entirely separated. The care of the women will be easier then.

The trees which stand in the grounds afford shade, which is very grateful to the patients during the summer months.

The grounds are surrounded by a wall. This is indispensable here and, as the grounds of the Chinese are usually thus surrounded, it probably does not offend the feelings of the patients as it would at home. The tendency in the home lands is to do away with everything that can suggest the idea of being shut in. When the grounds are very extensive they are surrounded by a simple fence of ordinary height and over which a man might easily leap. This does away with the impression that one is imprisoned. Under these conditions patients must be well watched, however, and each attendant is responsible for those under his care. In China, where there is so little consideration for this afflicted class, it is probable that without a good wall the inmates would be subject to many annoyances from the outside.

BUILDINGS.

Suitable buildings must be different from the same class of buildings at home just as foreigners' houses must be different and suited to the climate in which they are living.

Being pressed for room we have had to make use of several buildings already on the grounds and not put up for the purpose; we have also built several matsheds to help out.

Our first buildings, two in number, put up specially for the insane, are built according to the following plan:

![Diagram of building layout]

These are tastefully designed and, for a hospital of another kind, would be well adapted to the purpose. But there is one objection to this plan when used for the insane. These patients must be constantly
under watch. The two end rooms are wards large enough for seven beds each, although in fact they have had to be made to hold nine and sometimes ten. Of the ordinary run of patients one such ward is not enough for one attendant, especially here, where expense is a matter to be considered. The four between are private rooms. No attendant can be in two places at the same time. If one man has charge of two small rooms as well as a ward, he is necessarily absent from the latter (where he is needed most) when engaged in the former. The ward at the other end of the building is so far removed that he must likewise be away from one set of patients when present with the other, although if united in one ward he could take charge of the whole number almost as easily as of the half.

Our new building just being completed is planned thus:

![Diagram of the building]

Each ward will hold fifteen beds. This number of the usual run of patients on most occasions can be managed comfortably by one attendant.

But there must be private rooms as well for the better-to-do class. We hope to be able some day to put up another building, consisting of private rooms only. These are always in demand. Frequently patients must wait, because no private rooms are free. In many of our rooms planned for one person, we must have two and three, and this is difficult to manage, because they must be carefully selected as to relative compatibility of temper. We plan that such a new building shall have its own grounds separate from those of ward patients; for the more wealthy and refined are sometimes offended by the vulgar habits of certain of the former and do not feel comfortable where they must see them. Usually one attendant can look after several private rooms if there is only one patient in each; because separated patients cannot harm or irritate each other, and hence they need less watching.

Our buildings have two floors, and this is sufficiently high. Some at least of the newest and best in the home lands are thus built.
The walls of our buildings are three-brick thick below and two-brick above. Although here and there a few bricks have been loosened, no hole has been made in these walls. But in the case of some other smaller buildings which were on the grounds and which, though not put up for the purpose, must be used for patients, bricks have been taken out by using a stray nail or a chopstick and a hole made large enough to effect an escape. This has happened over and over again and not only in case of a one-brick wall but even in one of two-brick thickness, where little mortar had been used and the inmates had been left too long without watching.

Our old buildings have tiled floors. The tiles are objectionable from the standpoint of cleanliness and of warmth in winter; urine and feces will sometimes reach the tiles and penetrate to a certain extent. And in winter such patients as will not wear shoes, but only the straw sandals we provide, are likely to suffer as the result of cold feet. Moreover, the tiles often get broken and the fragments have sometimes been used as weapons to inflict injury upon self or others.

The floors of the new building are of cement concrete, both above and below. These will be easily kept clean and will give security from fire, which is a great source of comfort. But they are not a perfect floor. Indeed it is doubtful whether it is, after all, wise to use this material because of the danger of patients hurting themselves if they fall. There is sure to be a certain number of epileptics among the insane, and their seizures cannot always be prevented. They often bruise their faces on the tiles. It is to be feared that in the passage ways on the concrete floors we shall have to lay down a kind of matting made of split or small, unsplit bamboos strung together with small wires. This can be easily washed and rolled up for removal when desired. Common matting could not be used here as it can in the home lands, because many Chinese have the dirty habit of expectorating anywhere and everywhere and throwing fragments of food upon the floor. It would be very difficult to keep matting clean. Probably no floor is better than one made of well-seasoned hard wood; the pieces being fitted closely together and the narrow cracks filled with wax or other appropriate material. This can be easily cleaned, and there is little danger if patients fall; their feet will not become chilled in the winter time, nor will there be fragments to be used as weapons. When we again build we shall in all probability put down these hard wood floors.

Our windows are all provided with straight, upright iron bars. Undesirable though it is to use these bars, it would, in most cases,
be necessary here. An attempt is made at home to overcome this semblance of a prison so as to save the patients the feeling that they are locked in. In some cases instead of straight bars, ornamental ones are used, as shown in this diagram. The best plan is, no doubt, the use of a peculiar form of window as shown on the left hand side. The two heavy bars are ornamented by moulding. The spaces are filled in with sashes of iron provided with thick glass and so constructed as to turn around a vertical bar running through the middle of the sash, thus:

The spaces between these small iron bars and the heavy ones are too small for any one to pass through, and yet there is nothing to give the idea of prison bars but rather that of a handsome window. This is, however, necessarily expensive. In case the grounds are sufficiently large to permit of the cottage system being used, then some of the buildings may be set apart specially for quiet patients and the windows made without bars. Being pressed for room this year, we have been using matsheeds for such patients and have had nothing to regret.

In the wards of the new building all corners are rounded off in cement mortar, giving the least opportunity to patients to do injury to themselves and making the cleaning an easy matter. All wood work around the doorways and windows is done away with, excepting the piece which goes across the top. The doors and venetian blinds are of wood, well made, strong and secured by strong hinges. One part of each hinge is built into the wall, the other forms a strap which reaches more than half the distance across the door or blind. This is a necessary precaution which we have learned by experience.

In the first buildings all windows were originally provided with glass. In course of time every pane was broken, and it soon became evident that it was useless to replace it unless it be to furnish certain patients further opportunity to do damage. Moreover, the shutters of the venetian blinds have been broken over and over again. The
reason for this has been that patients have been left too much to them­selves either because of the number of attendants not being sufficient or from lack of watchfulness. But these experiences have prejudiced the writer against the use of glass and movable shutters. Furthermore, the climate being mild, with but a few months of inclement weather, it was decided that in the new building both might be dispensed with. But each window is provided with blinds having immovable slats. These blinds, when closed, will keep out the direct sunlight in the summer and the rain, while permitting the access of air, and they will not be easily broken. During the few months of inclement weather a piece of zinc will, by a simple device, be placed tightly over the slats on the inside of each blind on those sides of the building which are exposed to the cold wind. On days when these blinds must be closed, sufficient air and light will enter from the other unexposed sides.

Our bathing facilities have been very poor thus far, but when the new building is ready for use, two of the old wards will be turned into bath rooms: one for women above and one for the men below. Good rooms for this purpose are very essential; because, as will appear in a later paper on "Treatment," the use of the continuous bath in the case of disturbed patients, has now come to be not a luxury but a necessity. And more than that, if any class of people need washing it is the insane. Ample provision must therefore be made for good bath rooms and plenty of water. Those rooms used for the continuous bath should be large enough of themselves, or in close proximity to other rooms, to allow of the patients resting in bed after removal from the bath. Our water for the baths is heated in the kitchen and carried in pails. This is a crude way but, after all, the most practicable for us here; as it obviates the necessity of having fire in the bath rooms. Fire in these rooms would be a source of danger to certain patients and would therefore require close watching; it would be a source of danger to the building, and it would add still more to the already great heat of the rooms during the many months of summer weather.

The matter of latrines is a difficult one to manage where one has not running water. We use buckets made of heavy wood. Wooden commodes are out of place, as they are hard to keep clean and are liable to be broken to pieces. The covers of the buckets are thrown out of the windows or used as weapons to be thrown. In the day time the men go to an out of doors latrine, but the buckets must be in the rooms at night. This is offensive and unsanitary. In the new building each ward will have a corner partitioned off in which will be stationary
commodes built of brick with the surfaces cemented. They will be provided with galvanized iron buckets which fit perfectly. Provision will be made for a draught of air upward to the roof.

The ground floor of the buildings is given up to the men. The women must be specially protected. For this reason they are all on the second floor, excepting a few who, for lack of room, must occupy a small bungalow. Still better, if practicable, would be that men and women occupy entirely separate buildings. For this reason also the locks on the doors are all such as only the women attendants can open. When the new building is finished all the men's rooms throughout the hospital will be provided with locks which can be opened with one key. Each male attendant will have such a key. And all the women's rooms will be provided with another set of locks, all opened by another and different key and each woman attendant will have such a key. Thus in an emergency any woman attendant can open any of the women's rooms, private or ward, and any man attendant can open any one of the men's rooms, but no man can open a woman's room.

In a part of the country where mosquitoes abound, the placing of the buildings is a matter of no small importance. They should be so placed in reference to the prevailing winds as to insure the greatest freedom from these pests, because the insane may not indulge in the luxury of mosquito netting unless it be a patient who does not smoke or would not be likely in any case to tear or burn it, or unless he be in a private room with a private attendant.

CLASSES OF PATIENTS.

There are now over one hundred and fifty inmates. They are from every walk in life—from the yamen and from the street. Of the latter some, when brought, have the appearance of having been very much neglected. Some come long distances; the longest being from Shanghai, although now we are expecting one from Chinkiang. We were also expecting one from Chefoo, but received word that the patient had died suddenly. They come originally from many provinces, from as far north as Chihli and as far south as Singapore.

RELATIONS WITH OFFICIALS.

In a country like China it is not necessary to have passed a strict government examination before setting out to practice medicine. But the people have sometimes been known to take things into their own hands when, looking for a pretext to do violence to foreigners,
they have found such pretext in the death of a Chinese patient treated by a foreign physician.

Unless one had obtained the sanction of the officials to whom one might look for protection in an emergency, it would probably be unwise to open a hospital for insane; because there are likely to be injuries inflicted by patients on patients and, unless carefully watched, other social crimes as well, which might easily be made a pretext for violence against the foreign superintendent. We have been very careful to guard the women and have been well rewarded in having had but one experience with social crime.

This hospital was opened under very favorable conditions. Dr. Kerr had spent a long life in Christian medical work for the Chinese. He was well known and enjoyed the esteem of both people and officials. Any attempt made by him to help this afflicted class was sure to receive the commendation of both. The fact is we have never had even the semblance of any trouble either with the people or with the magistrates. We attribute this largely to the fact that the hospital has always been open to inspection. Many come and at all times of the day to watch the patients, and it must be widely known that they are kindly treated and that nothing is done in secret. As a usual thing, when bringing patients, the friends show no fear but, on the contrary, perfect confidence.

But very occasionally it has occurred that insane persons have had to forego the life and treatment in the hospital, because their friends refused to leave them unless some of the family (and in one case the whole family) should be allowed to live there as well. So fully has the hospital the confidence of the officials that at least one-third of the inmates are sent and supported by them.

SUPPORT.

The land has all been bought with foreign money. The two old buildings were erected in the same way, the new one not entirely so. All this money from foreigners has come in the form of voluntary gifts. But the time has come, in the judgment of the superintendent, when the Chinese should themselves provide for all further accommodation in the way of buildings and other improvements.

The running expenses, including the assistant Chinese physician's salary, are all covered by the income from the patients and small gifts which come occasionally. The income from those who rent rooms is an important item and more than makes up for the few who can pay nothing. The cost of those occupying a ward is $4.00 or $5.00 accord-
The John G. Kerr Refuge for Insane.

The writer wishes just here to express his gratitude to Rev. Alfred Alf, of the American Bible Society, for his interest and invaluable, voluntary help, especially when the former has had to be away from Canton for a time. During the long absence of the superintendent and family, while on furlough in America, Dr. H. W. Boyd, now of the Presbyterian Mission, took charge of the hospital. He was soon afterward called to the Canton Hospital.

The number of patients has recently increased so fast as to entail too much work upon one foreigner. It has become necessary to ask another physician to come from home to act as assistant foreign superintendent; the prospect being that when he shall have become conversant with the language and the people the number of patients will require the time of two physicians. All expenses of salaries, dwellings and travelling have been and must still be met by special money, and this the Master has always provided and, we believe, will still provide. A physician has already signified his willingness to come, and he will probably reach here early in the New Year.

CONCLUSION.

Since love to God and man was the motive power in the undertaking of this work, one cannot conclude a paper on “The Opening of a Hospital for Insane” without giving the praise all to Him whose love for man first begot a kindred love in the heart of the founder. And it is the first desire of the present superintendent that the hospital stand ever as a monument of God’s love to man, and that not only in an indirect way but directly also it be used to publish the gospel of our Lord Jesus Christ. Six mornings we meet—attendants and other helpers and the quiet patients—for the reading and explanation of a short passage of Scripture, prayer and singing. On the Sabbath there is preaching service and Sunday school. One mid-week evening we meet for Bible study with the attendants and other helpers and such patients as have recovered. Another evening is spent in the singing of sacred songs, when also a very short gospel talk is given. Among the recovered patients a number have publicly confessed conversion to Christ, and we believe that even among the slightly demented there may be those who can understand enough of God’s message of salvation to be saved. In this work we have two valued helpers in a native evangelist and a native Bible-woman, who also try to bring the gospel message to the outsiders who visit the hospital.
TWO MUSCULAR CASES.


The two following cases present some points of interest, and their difficulty of diagnosis must be my excuse for writing about them.

A coolie aged twenty-six was admitted suffering from pain and swelling in the left iliac fossa. No history could be obtained beyond the fact that he had had both symptoms for ten days. The left thigh was partially flexed, but movement in every direction, save that of full extension, was quite free, and there was no pain on jarring the leg. Above and parallel with Poupart's ligament on the left side was a hard tender mass about four inches long and raised above the level of the abdomen, very much resembling an appendix abscess, but of course on the other side. The abdomen moved well and his tongue was slightly furred. The diagnosis on admission lay between an abscess of some kind and a possible mass of worms. He was given an enema, which resulted in a fairly large motion, including a round worm, and ova of ascaris and of taenia were also found. He had an evening temperature of 99.8 F. and his pulse was also raised then to 100. More worms were obtained, but his condition did not improve at all and his breath was very foul, so that on the fourth day an operation was performed with the expectation of finding pus in the iliac fossa. This expectation was not fulfilled, but all the tissues under the superficial fascia were found to be very oedematous. The internal oblique and transversalis muscles were tense and almost gelatinous, swollen to a thickness of nearly one inch, and on pressure clear serous fluid oozed out almost frothing. Owing to the swelling it was not possible to be sure whether the peritoneum was divided or not, but certainly no opening was made into the general peritoneal cavity. Having explored pretty thoroughly without finding more than this, the wound was sewn up with a small gauze drain in one corner, and that night the temperature was subnormal. It rose again, however, for a couple of days as far as 100 F., but after being dressed, when the drain was removed and a small quantity of dark serum squeezed out, it fell again and has remained down ever since. The dressings were repeated every two days, and on each occasion for the first few times some more fluid was removed, but now the wound seems to have healed, and the tumour is quite gone, though there is still some induration along the course of the wound. Nothing resembling trichiniasis could be seen in the section of the muscles at the operation.
The second case is apparently of a medical nature. A boy, aged fifteen, in seeming good health, was suddenly giddy and fell when walking. He thinks he lost consciousness momentarily and afterwards had some pain and weakness in the right arm and leg. A few days later he began to have twitching movements in these limbs and was brought to the hospital a fortnight after the illness began. On admission his pupils reacted well, and there was nothing definitely amiss with his ocular movements, though some hesitation was observed, not apparently pathological. The tongue was protruded slightly to the left, but not enough to indicate any real paralysis, the right arm and leg were distinctly weaker than the left. Knee jerks were easily obtained, but rather flacid in character. At quite irregular intervals he is seized with attacks of twitching in the affected limbs, of a clonic character. Sometimes he will have several in the day and sometimes none. The attack lasts a few minutes and is painful, apparently like cramp; the movements being quite forceable and general in the muscles of both arm and leg. Of course the case is, in some ways, suggestive of epilepsy, but there has been no loss of consciousness except in the first instance, and it has also points of similarity with paramyoclonus multiplex, and I do not feel prepared to come to any conclusion about it as yet.

I should be very grateful for any suggestions from members of the Association as to these two cases.

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AT DEAVER'S CLINIC.—A SKETCH.

BY C. S. F. LINCOLN, M.D.

Every professional man has his Mecca, whither he journeys for communion with all that he holds most sacred in his professional faith, as well as for inspiration to greater achievement and more earnest work in the future. Each man has a prophet or seer in his particular line, to whom he traces that inspiration and in whose work he glories even as in his own.

In a professional family like our own the visions will be of many lands and cities and of men more or less distinguished in the world of healing.

Between the cities in America that are celebrated as centers of medical and surgical knowledge it would be invidious to draw comparisons; each has its special advantages and its coterie of brilliant
men. But for all who have studied there and known the charm of the place and the men, the old city of Philadelphia will always have a peculiar claim.

As I met and mingled with the students of the different schools and with many of the younger men in active practice, one of the most common questions asked would be, "Have you seen Deaver operate?"

It is not always easy to analyze the traits that make a man more illustrious in the eyes of his fellows than many of his contemporaries, who are probably equally clever. It is, I suppose, generally speaking, ability plus that indescribable influence which we call personality. The thousands of students who have sat upon the hard marble benches in that trim little amphitheatre at the German hospital, watching with eager interest the various steps of some difficult operation and listening with smiles to the sallies of Irish wit, have felt and recognized those qualities in John B. Deaver.

There is a sense of security and peace in that little amphitheatre that inspires confidence. The serene, comfortable looking German deaconesses, the cleanliness and sunlight, and the motto over the door through which the patients are wheeled in from the anaesthetizing room, *noli loqui, noli tangere*, all promise a sort of premium on longevity.

The assistants come in and begin to clean up, and in a few minutes Dr. Deaver himself enters; a plain well built man, with a strong face indicating Hibernian ancestry; every movement showing the force and energy of his character, and when he begins to talk the interest deepens.

He sketches briefly the history of each case, making a differential diagnosis if necessary, and then goes at his work with an ease and dexterity that are the admiration and envy of those who watch him, explaining each stage of the operation as he proceeds, with many bits of homely advice to both practitioner and student in his quaint epigrammatic style.

Every man has a hobby, which he loves to ride at times, and Dr. Deaver's is the vermiform appendix. In his opinion, and it is one not to be thought lightly of, no appendix has a right to remain. It is very doubtful if any case requiring abdominal section ever comes from under his hand with an appendix left. "Oh gentlemen!" he says, "if you saw as many cases a year as I do, and could see the mischief that is done by treating appendicitis on the expectant plan, you would feel as
At Deaver's Clinic.—A Sketch.

I do. Whenever I meet a doctor who is imbued with the idea that it is easy to cure appendicitis without resorting to surgery, and is laboring under the delusion that appendicitis is not such a dangerous disease after all, I invite him to come to my clinics for a week and he gets salvation."

Probably not a day passes that he is not operating at "the German," but on Saturdays at 1.30 p.m. are his regular operative clinics, open to both students and practitioners, and before the hour the benches are crowded, both sexes being represented.

Here is an afternoon's work, and rather a short one at that.

Case One: Appendectomy.—Unusually high situation of the secum makes the appendix more difficult to find. Stout people stand manipulation badly. Sometimes the appendix is subserus. When possible operate in the interval between attacks. His technique is not radically different from that of many other men. He advocates going after this organ through an incision in the right rectus muscle about an inch toward the linea alba from the right edge of muscle; the center of the the incision being half an inch below a line drawn from the umbilicus to the anterior superior spine of the ilium. The fibres of the muscle are separated by blunt dissection down to the posterior sheath. The advantages claimed for this route are that the secum and appendix are easily reached; if necessary to enlarge the opening, it can be done without materially weakening the muscular wall, and the dangers of ventral hernia are decidedly less than by the other routes. This is the so called "Deaver incision." He ties off the meso appendix and the appendix; having disinfected the cut end of the stump he invaginates it, using a purse-string suture and reinforces it by covering the site with the peritoneum. In closing the abdominal wound he sutures the parietal layer of the peritoneum first.

Case Two was also an appendectomy with a history of recurrent attacks. The appendix in this case was subserus, and he emphasized how hard it was in some cases to locate it if the serus coat be inflamed and opaque.

Case Three: A Hysterectomy for Fibroid.—The uterus was amputated at the cervix, using clamps to facilitate the operation, and the stump was covered by the peritoneum. The appendix was also removed.
CASE FOUR: Cholecystotomy for Calculi.—In regard to this trouble, as on all subjects relating to his profession, Dr. Deaver holds very positive views. He regards biliary calculi as the indirect result of infection of that tract. He emphasized the fact that all attacks of biliary colic were not necessarily due to the passage of calculi, but were in some cases due to spasm of the gall bladder, due to the occlusion of the ducts by inflammation. This had been illustrated many times in irrigating the gall bladder after operation.

Dr. Deaver does not advocate operation in mild or in first attacks unless the latter are unaffected by treatment after an interval of thirty-six or forty-eight hours. In the former class, or in those that respond promptly to treatment, he advises delay until there are other attacks. He mentions the fact that certain spring waters like Carlsbad, the Virginia Hot Springs, and Bedford Springs, Pa., are curative; but these are for the few who can afford to go. He also points out the duty of the physician in warning the patient against the dangers of impaction and that recurrent attacks of inflammation in this tract often involve adjacent organs, as the stomach and the pancreas.

On opening the gall bladder in this case about half a tea-cup full of calculi were found, and on removing them two more were discovered firmly wedged in the common duct, which were cut down on and removed. A tube was placed in both the duct and the bladder and thorough drainage instituted. Drainage to be complete and maintained for some time. Dr. Deaver also spoke of typhoid fever as a common source of infection of the biliary tract.

CASE FIVE was a disorganized knee joint, probably tubercular, following an old synovitis of six months' duration. Resection with the possible necessity of amputation was proposed; but was refused by the patient, who wished first to consult his family.

CASE SIX was a sub-periostial abscess of the tibia; opened, curetted and packed.

As I sat there and saw case after case brought in and treated, with every aid of modern surgery at hand to increase the chances of a successful result, I could not help thinking of my colleagues in China who, under adverse conditions and in many cases with meager equipment, are doing so much for their fellow-men in that comparatively unbroken field, in the introduction of modern surgery to an effete and sceptical civilization.
SPECIFIC ULCERATION OF GENITALS IN MALE.
SPECIFIC ULCERATION OF GENITALS.

By R. T. Booth, M.B., B.Ch., D.T.M. and H.

The accompanying photograph represents the condition to which a patient's genitals were reduced as the result of prolonged and untreated venereal disease. About nine months before he had come to the hospital suffering from severe ulceration of the glans penis, which had gone so far as to render amputation advisable. The patient, however, refused to submit to such radical measures and went away. Nine months later he returned in the condition depicted in the photograph. The entire penis had ulcerated away and the scrotum had evidently ulcerated in middle line right back to the perineum, ultimately extending to the margin of the anus. The remains of the scrotum, enclosing the testicles, lay as two folds, simulating labia majora, and the whole appearance was not unlike that produced by ulcerating granuloma of the pudenda in a female.

The patient was put under chloroform and the testicles removed and the entire ulcerating surface thoroughly scraped with a Volkmann's scoop and then treated with pure carbolic acid and alcohol. The patient was put on specific treatment, and is still in hospital, doing well.

He is one of three patients in at the present time suffering in the same way. The second is an elderly man, whose penis had been completely amputated twelve months ago. He had left hospital without permission of the surgeon before the wounds had completely healed, with the result that the ulceration had recommenced in the cicatrice and compelled his return owing to the complete destruction of all the tissue left at time of operation. He is improving under specific treatment.

THE HOOKWORM.—A personal letter from Dr. Ch. Wardell Stiles, dated Atlanta, Ga., November 9th, says:—

"For some months past I have been chasing the festive hookworm through the cotton mills. It may interest you to know that about 50-60 per cent of the question of child labor in the South is a question of Epsom salts and thymol! The typical "cotton mill child" is nothing more or less than a case of hookworm disease who can be turned into a human being very easily, despite the work in the cotton mill."

The above contains sermons for medical missionaries. A few minutes given to examination of the feces in cases of anemia will in nine cases out of ten, in my experience, show the hookworm egg. A few days of diet on soft rice without vegetables, with daily laxative, prepares the way for the thymol and Epsom salts which turn the useless human being into a useful member of society. This is an old story with us here and it should be in many more hospitals in China.—O. T. Logan, Changtch, Hunan.
A CASE OF INFECTION WITH ONE OF THE GORDIACEA.

By J. Preston Maxwell, M.B., B.S., F.R.C.S.

These worms, similar to filariæ, are rarely found infecting man, and, as far as we know at present, cause no ill effect.

According to Braun, they, in their adult condition, "live free in brooks, pools, and springs; the mouth and the commencement of the intestine are obliterated; there are no lateral ridges, and the muscular system presents a structure different to that of the nematoda. The posterior end of the male is split, and spicules are lacking; there are two testicles. In both sexes the genitals discharge through the terminal gut.

"The larvæ, which carry rostra beset with hooks, force themselves into the larvæ of water insects; more rarely, they invade mollusces, and then become encysted within the body of the host. According to Villot, at least a part of them attain the intestine of fishes, where they again become encysted, and after a period of rest, they travel into the tissues of their hosts, and finally again reach the exterior by way of the intestine, where they become adult. In most cases, however, the gordius larvæ are taken up by predaceous water insects; they live for a while in the body cavity of these insects, undergo a metamorphosis and finally wander into the water.

"A few specimens invade man accidentally with water, in which cases they are generally vomited up."

Two specimens have come into my hands. The first was brought to me coiled around the body of a green grasshopper, and was unfortunately lost while being transmitted to England. It was almost certainly a specimen of gordius aquaticus.

The second specimen was passed in the stool of a child of twenty months of age. It is brownish in colour, length 13 cm., sex female, and has lost the terminal portion of its body. It was alive when brought to me, exhibiting sluggish vermicular movement.

The child is in good health and has no bowel trouble at the present time.
KODAKING FOR SMALL GAME.

By W. H. Jefferys, Shanghai.

Dr. O. T. Logan, that chronic inspiration to good deeds, suggested to me, not long since, that something could be done by hitching a kodak to the proper extremity of a microscope, and I have gone "luny" on the subject. It is great sport and beats bird nesting and tarpon snapping all hollow. I cannot claim any great results as yet, but find all the satisfaction in the world in recording what I do see in this very satisfactory form.

The method is simple. First find the object to be photographed, choose the objective and eye-piece that give the best magnification and clearest definition, then gently turn the cylinder of the scope to the horizontal. For light use a large kerosene lamp reflected by the concave mirror. Place the camera on the same level, with the bellows fully extended, and with the lense practically in contact with the eye-piece, perhaps 2 mm. from it. Then focus on the ground glass, using the fine screw of the microscope to do this. Insert a plate holder and throw a dark cloth over everything except the stage and mirror. The diaphragm of the microscope should cut down all the dazzle, but no more, and the full strength of the condenser should usually be engaged. The stop of the camera should be cut down as for a time exposure. For 1 by 30 the exposure is in the neighborhood of two minutes, for 1 by 200 about five minutes, for 1 by 500 about seven to ten minutes. This if the field is fairly dark and the plates rapid. If it is very bright on the ground glass, that is, if the slide is very transparent, half this time will be enough.

One or two important points. There must be no vibration in the room, no walking or even loud talking. This especially for high powers. The centre only of the field will appear clearly on the negative. The camera stop must be well cut down. Sun light is inconstant and, so far, magnesium ribbon not efficient. If a large camera is used, it should be used with small plates placed centrally. A plate larger than 3 by 3 is wasted.

With diffidence I submit some early results, upon which I trust to greatly improve in the near future.

Plate 1 A. The peculiar tubular form of carcinoma from the case of xéroderma pigmentosa which I reported in the July issue last. It is 1 x 200.
Plate I. B. is my first attempt. A very black melanotic sarcoma of the finger. The tumor is shown Plate I. C. after amputation of the finger. It was of one year's growth; no glands involved and no recurrence after ten months. It was liver like, oozed black juice, and on section (photo is 1 by 200) shows sarcoma cells and huge dark brown pigment granules.

PLATE II.

A. Eggs in stool. Ascaris lumbricoides, fertilized. 1 by 200.
lips or a slit-like opening communicating by a tube with the upper compartment. Perhaps the lips depend on whether the view is antero-posterior or lateral. As to a horizontal partition, that too may depend on the point of view. In the first case I found one specimen and in the second many. The color is light coffee brown. The neck is sometimes much longer than at others. Once or twice it was absent, or retracted, or broken off. I am working on the thing at present and hope to identify or further describe it at a later time. I do not even feel sure what sort of a "hinsect" this may be. It is certainly some form of intestinal parasite (or bladder). I am inclined to believe it an animal and perhaps a gregarinida. (See Braun, pp. 63, 64 and 67). It is always alive and in good preservation, and is an entity. Suggestions on this finding will be gladly welcomed. I shall send specimens to Drs. Stiles and Ward if the thing seems to warrant expert advice. I know nothing of its significance. I. After two weeks' incubation of stool, has 5 cells and neck. K. Neck is perhaps absent, perhaps broken off.

Speaking of advice and opinion with reference to my case "Not Diagnosed," published with the Kaposi case in July, I have received several interesting opinions and am inclined to favor the suggestion "Dermatitis Blastomyotica," made me by Dr. Olsen, U. S. N. I regret to say I have no means of determining the question at present. Dr. Cochran, Hwai-Yuen, sends the photograph of a case of his own which resembles mine in several particulars, and I think that we shall pretty soon have another opportunity of settling the matter with the microscope. Unfortunately my patient has dropped back into the human ocean of China.

The ovum of opisthorchis sinensis should of course have been included in "The Fecal Chart for China." Several of us are finding it already. I have some 13 specimens of the fluke, removed from the gall bladder. Herewith is a tracing from Braun:

![Uterine egg and miracidium of opisthorchis sinensis. (After Leechart.)](image_url)
REPORT FOR 1907, PATHOLOGICAL LABORATORY,  
ST. LUKE'S HOSPITAL, SHANGHAI.

The work here reported was done under my personal direction and the several lines of investigation were under way fully six months before the Research Committee of the Association was suggested. I need not therefore apologize for including Dr. Day's fecal report herein. The cases reported were from all sources in the hospital. The work was done simply, but with scientific honesty, and is offered rather as an earnest for the future than for its present value. The equipment is limited and our incubator proved uncontrollable in mid-year. I need not call attention to the incompleteness of bacteriologic diagnoses made from smears alone. The results here, however, may for the most part be trusted, as we are sufficiently well acquainted with these common organisms to spot them on sight.

The urine chart will prove of interest as a general survey of what one may expect to find in Chinese hospital routine. In my surgical wards I have been impressed with the fact that the condition of the kidneys does not play the important part it does in home surgery; the Chinese, including the old, bearing operation well and rarely suffering from post-operative uremia. Also, albumen does not figure in the urine of the old, as with our own people. It seems likely that alcohol is the determining factor.

The fecal findings will be added to during the coming year, and it is hoped to submit a total of 1,000 to the chairman of the research committee. This should give a fair idea of the parasites of Shanghai.

Personally I have played the part of referee, though my chief line of investigation has been in furtherance of a general study of the nosogeography of China, upon which I shall not be ready to report for a year or two. I desire, however, to note the following special findings:—

1. Kaposi's disease, diagnosed in a Chinese, and report with microscopic findings.
2. Clinical report and microscopic findings in a typical and specially perfect specimen of melano-sarcoma of the finger.
3. The failure to incubate the atypical ascaris egg which in the incubator appears to decompose.
4. The findings of the typical egg of ascaris in three cases in which, after repeated doses of powdered santoniu, and careful inspection, only female worms could be induced to appear, and therefore the suggestion that there is still an unexplained factor in connection with the fertilization of these eggs.
5. The description of an intestinal parasite (see the photographs in this issue of the Journal), which may prove of future interest. I make no particular claims
Pathological Report, St. Luke's, Shanghai.

for this parasite at present, but prefer to describe it before others do so and also to
hear whether it has been reported upon before my doing so.
6. Sundry specimens examined for colleagues in China. In this connection
I should like to say that I am only too glad, as a member of the Research
Committee, to examine and give our collective opinion on specimens entrusted
to me by those without laboratory facilities; such findings to be the property of
the sender.

I would also add that we have two extra desks in the laboratory
and that we shall be happy to welcome to them as our guests any
practitioners in the East who feel that a few weeks personal work here,
with the clinical material of St. Luke's as a basis, would be profitable.
If any desire to take up this offer, they will oblige me by giving notice
thereof and fixing the approximate dates in advance.

We have had the pleasure of giving such desk room to the follow­
ing guests during the past year:—

Dr. Lee, Wusieh.
Dr. Eytinge, U. S. N.
Dr. Scott, Honan.
Dr. McMurtry, Honan.
Dr. Olsen, U. S. N.

WM. H. JEFFEYRS, M.D.

A BACTERIOLOGICAL REPORT OF SMEARS FROM 200 CASES OF
EXTERNAL OCULAR INFECTIONS IN SHANGHAI, 1907.

<table>
<thead>
<tr>
<th>BACTERIOLOGICAL FINDINGS</th>
<th>Conjunctivitis Acute</th>
<th>Conjunctivitis Chronic</th>
<th>Conjunctivitis with Corneal Ulcer</th>
<th>Trachoma</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koch-Weeks bacillus</td>
<td>41</td>
<td>2</td>
<td>1</td>
<td>...</td>
<td>44</td>
</tr>
<tr>
<td>Morax Azenefeld diplobacillus</td>
<td>3</td>
<td>17</td>
<td>13</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>Pneumococcus</td>
<td>2</td>
<td>...</td>
<td>7</td>
<td>...</td>
<td>18</td>
</tr>
<tr>
<td>Staphylococcus</td>
<td>4</td>
<td>...</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Mixed infection: Morax diplobacillus</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Mixed infection: Morax diplobacillus, Staphylococcus</td>
<td>4</td>
<td>4</td>
<td>...</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Mixed infection: Morax diplobacillus, Streptococcus</td>
<td>...</td>
<td>...</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Mixed infection: Morax diplobacillus, Gonococcus</td>
<td>...</td>
<td>...</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mixed infection: Morax diplobacillus, Pneumococcus</td>
<td>...</td>
<td>...</td>
<td>1</td>
<td>...</td>
<td>2</td>
</tr>
<tr>
<td>Mixed infection: Pneumococcus, Streptococcus</td>
<td>3</td>
<td>...</td>
<td>1</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Mixed infection: Pneumococcus, Weeks' bacillus</td>
<td>3</td>
<td>...</td>
<td>1</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Mixed infection: Pneumococcus, Staphylococcus</td>
<td>...</td>
<td>...</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mixed infection: Weeks' bacillus, Diplococcus (unidentified)</td>
<td>...</td>
<td>...</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Unidentified diplococcus</td>
<td>2</td>
<td>...</td>
<td>...</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Negatives</td>
<td>22</td>
<td>3</td>
<td>...</td>
<td>19</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>52</td>
<td>13</td>
<td>58</td>
<td>200</td>
</tr>
</tbody>
</table>
From the bacteriological findings as tabulated above the following conclusions may be drawn:

Firstly. In the 200 cases, pure infection with Weeks' bacillus was found 44 times, occurring 41 times in acute conjunctivitis and none in corneal affections. Judging by this evidence it may therefore be concluded that Weeks' bacillus is not prone to attack the cornea.

Secondly. Under the column of chronic conjunctivitis the diplobacillus of Morax and Axenfeld occurred 17 times in pure infections whilst it was found in only three cases of acute conjunctivitis. It thus appears that the diplobacillus is largely responsible for the chronic form of conjunctivitis, specially that in which the palpebral conjunctiva is affected. But it is not justifiable to warrant the conclusion that this organism is the causative factor of corneal ulcerations, although it was also found in 13 cases of conjunctivitis with the involvement of the cornea, because no measure was taken to differentiate it from the closely related organism described by Rochat. The latter might have been present in those 13 cases since it bears a great resemblance in morphology.

Thirdly. Gonococcus seems to play the most prominent part in the etiology of purulent conjunctivitis, and it also appears to be no less virulent than the other pyogenic bacteria in the destructive production of corneal lesions. Of the 58 cases of corneal ulcers it was found in nine in pure infection. It may be safely added that Morax diplobacillus while found generally in cases of subacute conjunctivitis, with recurrent corneal ulcers and gonococcus, more often occurred in virulent conjunctivitis with extensive ulceration of the cornea.

As regards the mixed infections and the eight cases of trachoma nothing special is worth mentioning, as the number of cases in which the various types of bacteria were found on the same smear are too few for consideration. In order to deduct absolute conclusions a much larger number of cases should be examined than in the series here presented. In presenting the foregoing conclusions we should be unwarranted in drawing any positive conclusions as to the particular form of ocular affection always dependent upon a particular type of organism.

We offer the above bacteriological findings and the conclusions drawn from them with the realization that they have value both because they represent, we believe, the first careful study of this question made on Chinese soil and at least serve to identify certain well-known micro-organisms as pathogenic in China.

E. Sinded Tyau, M.D.
# A Report of the Microscopic Findings of 400 Specimens of Urine in St. Luke's Hospital, Shanghai, 1907.

<table>
<thead>
<tr>
<th>Pathological Report, St. Luke's, Shanghai.</th>
<th>Non-organized Sediments</th>
<th>Organized Sediments</th>
</tr>
</thead>
<tbody>
<tr>
<td>-------------------------------------------</td>
<td>------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Syphilis</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Traumatism</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Malignant Tumors</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Feveral Disorders</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Seruria</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Renal Diseases</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Non-specific Feveral Fevera</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Malaria</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Abdominal Operations</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Cystic and Urethral Diseases</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Acute and Edema</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Nervous Diseases</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Gangrene and Necrosis</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Minor Ailments</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Health</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>11</td>
</tr>
</tbody>
</table>

- Non-organized sediments include: Ureic Crystals, Ammonium Urates, Sediment Urates, Uric Acid, Calcium Oxalate, Calcium Phosphate, Calcium Sulphate, Ammonium-magnesium Phosphate, Amorphous Phosphate, Leucin, Tyrocin, Cholercerin, Magnesia, Ammonia, Calcium, Indigo, Urethral Cysteine.

- Organized sediments include: Epithelial Cells, Tube Casts, Blood Corpuscles, Epithelial, Hyaline, Granular, Spermatozoa, Fat, Phosphatic, Cylindric, Acute, Pigmented, Tuberous, Bacilli, Congestion, Negative.

The number of cases is represented in the last column, with a total of 124,400 cases.
From the table we note that in the 400 specimens of urine, calcium oxalate has occurred 105 times; squamous epithelium of urethral and cystic origins, 107; sodium urate, 81; pus and mucous corpuscles, 79, and ammonio-magnesium phosphate, 66. Consequently we may infer that these five are the commonest ingredients of urinary sediments in Shanghai.

The crystals of calcium oxalate varied in form and shape; the most common variety being the octahedral. According to our observations calcium oxalate is generally found together with squamous epithelial cells, which leads us to suggest that the exfoliation of the latter may be more or less due to the mechanical action of the octahedral crystals of the former.

Not infrequently we found that the alkaline phosphates and the acid crystals were contemporaneously present in the same specimen. This may be attributed to the feebleness of the acidity, or, as Tyson describes, to the presence of carbonic acid or acid phosphate of sodium.

As to the parasites in urine we have seen trachomonas vaginalis four times. They were found alive and swimming with their characteristic jerky motion. It seems that they have not shown any clinical significance.

We found that renal elements were more or less associated with cases of pneumonia that had come to us and been under our treatment. Every case had some renal cells, or tube-casts, or both. However, we hesitate to make a general statement, as our findings are those of a very limited number of cases.

In 25 cases of non-specific fevers sodium urate was present in 22 cases, and in seven cases of pneumonia three had the urates, as had also three cases of malaria. From this we may infer that sodium urate is one of the chief constituent of the sediments of fever urines.

Under the microscope we sometimes met with difficulty in distinguishing the amorphous urates from the amorphous phosphates. To facilitate their recognition, we often resorted to some simple chemical tests, e. g., moderate heat dissolves the urates and a drop of acid clears up the phosphates.

C. U. Yui, M.D.

LABORATORY REPORT OF THE MICROSCOPIC EXAMINATION OF FECES FOR 1907.

In presenting this report we purposely limit our study to the finding of ova in the stools, in order to show with exactitude the amount of infection, with animal parasites, of the people of this part of China.
Pathological Report, St. Luke's, Shanghai.

During the year 500 stools, mostly of the surgical ward patients of St. Luke's Hospital, were systematically examined, irrespective of symptoms presented. Out of this number, however, the findings of the first fifty are excluded for the sake of greater accuracy, thus our observation only covers a series of 450 stools.

Dr. Olsen’s report on fifty stools examined was printed in the Journal of the American Medical Association for March 2nd, 1907. These were also cases from St. Luke’s wards, and the examinations were made in the laboratory.

The following is the result of our findings in tabulated form:—

INFECTION WITH ANIMAL PARASITES IN 450 STOOLS EXAMINED.

<table>
<thead>
<tr>
<th></th>
<th>Single Infection</th>
<th>Mixed Infection</th>
<th>Total Cases of Infection</th>
<th>Percent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris lumbricoides</td>
<td>151</td>
<td>96</td>
<td>247</td>
<td>54.8</td>
</tr>
<tr>
<td>Tricocephalus dispar (trichiuris)</td>
<td>22</td>
<td>89</td>
<td>111</td>
<td>24.6</td>
</tr>
<tr>
<td>Ankylostoma duodenale</td>
<td>4</td>
<td>21</td>
<td>25</td>
<td>5.5</td>
</tr>
<tr>
<td>Opisthorchis sinensis</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>.4</td>
</tr>
<tr>
<td>Fasciola hepatica</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>.4</td>
</tr>
<tr>
<td>Strongyloides intestinalis</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Oxyuris vermicularis</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Cases with positive findings</td>
<td>...</td>
<td>...</td>
<td>275</td>
<td>61.1</td>
</tr>
</tbody>
</table>

INFECTION WITH ANIMAL PARASITES IN 500 STOOLS
(INCLUDING DR. OLSEN’S 50).

<table>
<thead>
<tr>
<th></th>
<th>Our cases of Total Infection</th>
<th>Dr. Olsen’s cases of Total Infection</th>
<th>Per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris lumbricoides</td>
<td>247</td>
<td>26</td>
<td>54.6</td>
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<td>Ankylostoma duodenale</td>
<td>25</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>Opisthorchis sinensis</td>
<td>2</td>
<td>2</td>
<td>.4</td>
</tr>
<tr>
<td>Fasciola hepatica</td>
<td>1</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Oxyuris vermicularis</td>
<td>1</td>
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<td>.2</td>
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<tr>
<td>Strongyloides intestinalis</td>
<td>...</td>
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<tr>
<td>Cases with positive findings</td>
<td>275</td>
<td>30</td>
<td>61.0</td>
</tr>
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Eli Day, M.D.
HEALTH OF NEWCHWANG FOR THE YEAR MAY, 1904, TO MAY, 1905.

During the year in which I held the temporary appointment of Customs doctor for the port of Newchwang, I am glad to report that the health of the foreign community there has been remarkably good. One resident died suddenly at Shanghai, where he had gone on business. There were two additions to the community by birth. There has been no epidemic of plague, small-pox, cholera, or other infectious disease, with the exception of a mild form of influenza, which went round nearly every one. It was remarkable principally for the severe neuralgias which accompanied it in several cases. An American correspondent who had been staying in Newchwang for some weeks, was accidentally shot dead while trying to get to Port Arthur on board a native junk. His body was brought to Newchwang. At the post mortem examination it was found that the bullet had penetrated the brain at the back of the head, smashing the bone into a great many pieces. Among the Customs staff one case of severe dysentery occurred. After three weeks in hospital he was discharged cured. Washing out the large intestine by means of a rubber catheter, with a strong solution of permanganate of potash along with ipecacuanha internally did good. Among the shipping community there was one severe case of typhoid fever in a young engineer, who eventually succumbed. One case of small-pox was removed from a British steamer, which came from Shanghai, to the infectious diseases hospital established by the Japanese administration. The patient was a Greek, and had contracted the disease where it had been raging for some time before the steamer left. After being in hospital about three weeks he was discharged cured. Several cases of death from charcoal fumes, on board ship, occurred. In one ship three men, Chinese stewards, shut themselves into a small four-berth cabin with a charcoal fire and went to sleep and were found dead the next morning. On another ship one man died in a similar way. Three employees of the Chinese Imperial Railway at Yingkow station were also poisoned in this way, but two of them recovered, after getting them into fresh air and applying stimulation.

As the war was seen to be coming nearer our doors, a Red Cross and Refugee Aid Society was formed in Newchwang in connection with the
central society in Shanghai. Neither belligerent, however, needed our help for their own wounded, so our work was restricted to the care of Chinese wounded. The missionary doctors in the province placed their hospitals at the disposal of the Society, who supplied them liberally with surgical dressings, anti-septics and other hospital requisites. Our Newchwang hospital received and treated about thirty cases. Two native junks were blown up by mines in the Gulf of Pechili and the survivors were picked up, in one case by another junk, in the other by a steamer, and brought to Newchwang. Three of these men were treated in the Red Cross Hospital for slight wounds all over the body, caused by the explosion; one of the three, however, had his eyesight permanently injured. A number of children and young men were treated for injuries of fingers and hands, often needing amputation, due to the explosion of shell fuse which they had picked up and were carelessly examining. Several cases of bullet wounds were also treated after the battle of Ta-shih-chiao, which place is distant about sixteen miles from Newchwang. The Chinese in that battle did not suffer very much. After the battle of Liaoyang, Dr. Westwater had over 300 Chinese wounded and Dr. Christie in Moukden had over 200.

At the time of Mistchenko's raid on Newchwang a carter found himself between the belligerents. Wishing to get away quietly, he yoked his horses in the dead of night and proceeded on his way. The Japanese guard, hearing the noise of the approaching cart and thinking it was a movement of the Russians, fired, killing one or two horses and wounding the carter. The bullet entered to the outside of the anterior superior spine of the ileum, scoring deeply the bone for three inches and then passed out. After an operation, in which a good many loose pieces of bone were removed and good drainage established, the wound healed up. As the Red Cross hospital at Newchwang did not have many wounded, it acted as a distributing centre for the other Red Cross hospitals up country.

Amongst my ordinary Chinese patients in the mission hospital at Newchwang there was an interesting case of bullet wound of the abdomen. The patient, a young lad, had been accidentally shot by a pistol. My colleague, Dr. Gordon, who was helping me for a few months at that time, opened the abdomen the next day, but could find no injury of the intestines. The bullet was found lying loose in the bottom of the pelvis and was removed. The lad made a good recovery. A case of popliteal aneurism was also operated upon by him. The sac was exposed and opened and the artery tied above its entrance to the sac. The whole limb was wrapped in cotton wool and slightly elevated.
After a day or two, however, gangrene commenced to set in owing to the cutting of the main blood supply to the leg, so it had to be amputated above the knee. Although the man was about fifty years old he eventually made a good recovery, and with the aid of a wooden stump and crutches he was able to get about.

In Manchuria the largest proportion of our surgical cases are due to tuberculosis. The number of diseased glands of the neck and armpit from this cause is enormous. Women especially suffer from this disease. I believe the overcrowding and want of ventilation of their dwellings during the night is largely to blame for this state of things. Four to eight adults often sleep in a small room with windows and doors closed. A little knowledge of the good qualities of fresh air and cleanliness of the person would do much to get rid of this terrible scourge. Latterly I have been having three or four operations a week from this cause alone. During the year several cases of excision of the elbow joint, for tubercular disease, have done well, also a case of amputation of the thigh in a woman, for advanced tubercular disease of the knee. Several amputations of the leg were performed on cases of railway accident.

Two other cases I would like to record, although they happened a few days after the year closed. A young man was operated on for ununited fracture of the thigh and amputation of the thigh was performed. The shock of the operation, however, was very great and we were afraid he would not pull through. The heart beat was over 150 per minute and the pulse at the wrist could not be felt. Dr. Daly gave a saline injection of about seventy ounces into the loose tissues of the flanks. This undoubtedly saved his life. Injections of strichnine and the raising of the foot of the bed about sixteen inches, so that the blood gravitated towards the heart also helped to pull him through the critical period. He is now making a good recovery. A case of tumour of the leg, of which I append a photograph, was also successfully removed. The tumour weighed nearly seventeen pounds and had been growing for over two years.

The statistics for the Newchwang hospital for last year are as follows:

In-patients, 385; operations, 288; dispensary new cases, 6,194; returns for medicine, 4,515; daily dressings (including those in hospital), 19,010; cases of opium poisoning, 50.

I also append a table of the average temperature and rainfall for the year, for which I am indebted to Mr. Benson, Harbour Master at Newchwang.

T. L. Brander, M.D.
IN EXPLANATION.

To the Editor, CHINA MEDICAL JOURNAL.

DEAR DOCTOR: I have been informed that the paragraph relating to "venereal diseases," in my Customs medical report, September 30th, 1906, page 328 in the November number of the JOURNAL, was objectionable, and that I was wrong in making this assertion. I have been requested by the Consuls and the Captains concerned to rectify this in the next issue of the JOURNAL, and I do so by asking you to kindly publish the following:—

(1). Every sailor destined for this port is subjected, before his departure from Shanghai, to a complete medical examination, and must be free from disease before being allowed to come here. They could therefore import no disease.

(2). The men are subjected on board to periodical medical visits, and should any one be found with venereal disease, he is prevented from leaving the ship until cured. Therefore, if contracted in Chungking, he would not be able to propagate the disease.

I am, yours, etc.,

J. H. McCARTNEY,
Customs Medical Officer, Chungking.
THE NEW ENGCHHUN HOSPITAL, ENGCHHUN, FUHKIEN PROVINCE, SOUTH CHINA.

Buildings in China, especially in mission service, where every penny has to be carefully considered, are erected with an eye to utility rather than appearance.

The new hospital at Engchhun is no exception to this rule. As will be seen by reference to the photo, the hospital consists of four large double-storied blocks connected together by bridges, with a large double storied gatehouse and several blocks of subsidiary buildings.

To go round the hospital in detail, let us commence at the main entrance. The gatehouse is a two-storied building, the central portion forming a covered porch below which, when complete, will be fitted up with seats for patients. The inner wall of this porch carries the main hospital door, and the large room over the porch and gateway forms the main store for hospital bedding.

On either side of the gateway there is a single room below and a single room above. On the left as one enters, is the room of the porter on duty, with its wicket for the distribution of tickets on outpatient days. Above this room is the head porter's room, entered by an outside wooden stair.

On the right as one enters, is the large chair house for sedan chairs. Above it, and also approached by an outside stair, is a room divided into two by a partition, which serves as bedrooms for two hospital porters. The hospital has four porters, each of whom in turn comes on duty for a week, during which time he may not leave the hospital and must be ready to do any thing the doctor or his assistant require.

Coming inside the gateway one is confronted with two paths. The one leads straight on to the inner gate of the hospital, past the site of a small mortuary to be built as soon as funds permit. Entering this inner gateway one walks straight to the foot of the stone staircase of the second block, having the hospital lavatories, destructor, and pig sty on the right immediately on entering. Further on the right, after a small court, come the wash house, isolation, venereal, and leper wards, and further on, beyond these, the kitchen, rice and oil store, wood room, well house for kitchen well, and a rice pounding room not yet completed.

The bedrooms of the two cooks are also included in this group of buildings, all one-storied and mostly old or reconstructed.
NEW ENGCHHUN HOSPITAL.

Front View, showing Gate House, Blocks 1, 2, 3, and tip of 4 (behind). Doctor's residence to left.
To return to the gateway, over the portal of which one notes two inscriptions in Chinese character. The upper one reads:

"JESUS HOLY CHURCH HEALING HALL."

The lower, which is a very fine specimen of the moulder's art, reads:

"GOD IS LOVE."

Taking now the path to one's left, one notes the large outer block and immediately arrives at the doors of the hospital chapel. Over the two doorways which form the entrance to the chapel (one for men, the other for women) is the inscription in Chinese character:

"CHRIST CAME INTO THE WORLD TO SAVE SINNERS"

and high up in the centre of the end of the building, above the first floor windows, is a circle with the figures 1906 in the centre and the Chinese characters for "GLORY TO GOD" grouped around this medallion.

Entering one of the large doorways below, one finds oneself in the chapel. Down the centre runs the moveable partition which divides the men from the women. At the further end is the platform with over it the motto in Chinese:

"PREACH THE GOSPEL, HEAL THE SICK."

To the left of the platform is a dais with a baby organ, kindly presented to the doctor for the use of the hospital. On the walls are bright Scripture pictures, and as one turns one finds facing the platform a fine memorial tablet, remembering one to whose memory the outer or administrative block and the women's block are erected. This tablet is in dark bluish granite with sunk gilt letters, the lower half in Chinese character and also including the text John iii. 16. Above this tablet is a clock, kindly presented to the hospital, and forming the official hospital timekeeper.

Passing up the chapel one is confronted with two doors: one to the right, the other to the left. The one to the right leads into a vestibule, which is also provided with a door from the outside, and serves as a waiting room for patients who come on other than out-patient days.

The left hand door leads directly into the hospital assistant's room. A passage leads down the centre of this block, and on either side are a set of rooms. To the left there are the hospital assistant's room, a drug store, and the dispensary. On the right are the main staircase with a fine dark room for ophthalmic work, built in below and
further out; the office of the student on duty, an examination room for patients, and the Doctor’s consulting room. The last three rooms are connected by doors.

Mounting to the upper floor one finds over the chapel a students’ room, shut off from the rest of the block by double spring screen doors. The windows are all netted with wire mosquito netting, so that there is no need for any nets in connection with the beds.

To the right of the central passage above is the students’ bathroom and lavatory, a small kitchen for making tea, etc., for the after-operation ward which adjoins it. Beyond this again is a large scientific work room. On the left is the students’ dining room, a small store room, the sterilizing room, and a fine operating theatre.

Passing now either out of the lower passage, or along the bridge at the end of the upper passage, one enters the second block. With the exception of the hospital preacher’s room, the whole of this block is divided into wards of two, four, or six beds respectively. Two of the wards of two beds are supported respectively by friends at Solihull and Bromley. Of the two-bed wards, three are for hire by private patients.

Of the remaining wards—three—containing fourteen beds in all, are fitted up for the initial stages of the cure of opium smoking. The windows are barred and mosquito proof, and the doors are fitted with locks and bolts. Those coming for cure go into these locked up rooms for the first week and are not allowed to leave them during that time. They are then transferred for the remainder of their cure to one of the other wards in this block.

One also notices a stand of buckets of sand ready in case of fire and a long ladder hung in the upper storey ready for use in case of emergency.

Passing on now to block three:—This is a large block of four wards; two below and two above, named Faith, Hope, Charity, and Peace, and accommodating forty-eight patients. The south side of the block is protected by a verandah, and in front of this verandah on the ground floor is a large covered area fitted up with a stone table, a large case for dressings, a large irrigator, and in due time to be fitted with stone seats. This place is used for the dressing of chronic ulcers, of which one has to treat a large number.

Still passing on one comes to a gateway in a wall which divides off the fourth block from the other three blocks. Above, the bridge between blocks three and four is similarly closed by a door, which is kept strictly locked. Entering either of these doorways one finds oneself in front of a big square block containing two large wards, one
NEW ENGCHHUN HOSPITAL.

The Administrative Flock from the Northeast.
above and one below; four small wards, a small operating theatre, a
storeroom, matron's room, and lavatory.

This is the women's block, and behind it towards the north is a
small set of old buildings, including the main women's lavatory, a small
kitchen, an isolation ward, and a wash house with its own well. These
latter rooms are not fitted up as yet, owing to lack of funds. The main
wash house of the hospital, noted before, contains also its own well and
boilers.

Feeding the patients, as the hospital does, always means that there is
a certain amount of waste. This is obviated and turned into a source of
profit by the keeping of pigs, and under proper control and management
there is no objection to this arrangement on the score of cleanliness.

Besides the buildings which have been already described, in the
grounds of the doctor's house there are storehouses for wood, oil, lime,
spirit, glass, and paint, hardware, a carpenter's shop, and stables for the
doctor's horses and the hospital horse, which is used by the assistant
and students when going to see cases outside the hospital. Most of
these things have to be bought in bulk and brought up the river, if one
wants to run the hospital on an economic basis. Glass for instance has
to be bought on the spot.

The doctor's study is connected with the administrative block by
telephone, and the consulting room with various parts of the buildings
by means of electric bells.

On the south side of block one is a water tower to be finished at
some future date. A well has already been sunk to serve this tower,
and it is hoped that in the future it may be possible to erect a proper
water plant with pipes running all over the buildings. Connected
with this water tower is a flagstaff, which on out-patient days flies a
Red Cross flag.

It must be borne in mind that the hospital is as yet unfinished.
Drains are as yet not properly laid and grounds are yet in disorder.

One point may be noted about the drainage system. There is
not a covered drain in the place, and in all the building care had
been taken to avoid leaving any place which might serve as a har­
bourage for rats. With plague all round, this is an item of great
importance.

Then the roofs of three of the blocks are made of wood covered
with patent roofing. This enables them to be made with only a slight
pitch, and putting aside the fact that it is cheaper than tiles, it has the
advantage that it can be easily looked over and repaired in case of need
without calling in workmen from the outside.
As to the accommodation. The provision is as follows:

Male.—102 beds, including: Opium, 16 in the lock up wards; lepers, 6; venereal and isolation, 6.
Female.—28 beds, including: Venereal and isolation, 3.
There are also two beds in a special post-operation ward.
Total number of beds, 132.

As to the possibilities of the hospital, perhaps it would be well to say a word. The building has been opened some six and a half months, and in that time there have been:

- In-patients, 600.
- Operations, mostly serious, 300.
- Visits paid outside the hospital, 200.

Unfortunately the staff is shorthanded at present and the supply of suitable students is insufficient. But it is hoped that ere long this deficiency may be made up.

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THE OPENING OF ST. JAMES' HOSPITAL, ANKING.

The formal opening of this hospital took place October 23rd, 1907. It has been under construction for nearly two years, and although described in the Journal for September, a brief recapitulation may not be amiss.

The hospital is built of blue brick, with heavy trimmings of red brick and granite, relieving the otherwise sombre effect of the blue. In style it is a modified Gothic, not embodying Chinese features. Its shape is that of the letter E, facing south with arms projecting northwards and is three stories in height in the two long arms where the slope of the land made the addition of basements necessary. These long arms contain each three wards for men and women respectively; the women's wards having one-half the capacity of the men's. The short central arm, one storey in height with basement, contains the aseptic operating room and adjoins the sterilizing and anaesthetizing rooms and recovery ward on the lower floor of the central arm of the E. This arm is administrative, and contains on the lower floor, besides the aseptic operating suite, chapel, drug and store rooms, minor operating rooms and offices, and on the upper floor laboratories and private rooms. The men's and women's departments are separated by partition walls in the corridors above and below in this arm. The capacity of the hospital is one hundred beds.
ST. JAMES HOSPITAL, ANKING, CHINA, REAR VIEW.

Residences of Foreign Staff at left. Residences of Chinese Staff and Dispensaries are on the right. All foreground is hospital property.
Opening of St. James' Hospital, Anking.

In front of the hospital is the dispensary building, in which the entire separation of men and women is carried out, with special rooms for medical and surgical cases and central drug room.

The opening exercises extended over three days. On the first, H. E. Teng Hsii, Governor of Anhwei, the representative of Viceroy Tuan Fang, with over forty of the highest officials of the province, were present. On arriving they were received at one of the foreign residences, and after a short interval were conducted by Dr. Woodward to the main entrance of the men's hospital. There the company paused, and after prayer by the hospital chaplain, the Rev. E. J. Lee, Dr. Woodward handed a box containing a silver key to the Governor and asked him to open the hospital for the reception of patients.

The guests were then shown over the hospital and were much interested in the very complete appointments, major and minor, operating rooms, running hot and cold water, foreign bath tubs and electric bells. After a full inspection they were ushered into the large men's surgical ward, which had been profusely decorated with flags and chrysanths and where they were entertained at luncheon prepared by the ladies of the station.

This over, Dr. F. L. Hawks Pott, of Shanghai, acted as Chairman and gave an address of welcome on behalf of the mission. He then introduced the special representative of Viceroy Tuan Fang, by whom he had sent a special message, which was read and translated. It spoke in high terms of the work being done by medical missionaries throughout China and ended with the request that those in charge of the new hospital do all in their power to help the government rid the Chinese people of the opium curse.

The Governor's address was then read. In it he spoke with appreciation of the suffering relieved by the old St. James' Hospital. This was followed by H. B. M. Consul, W. P. Ker, of Nanking, who read greetings from Sir John Jordan, British Minister at Peking, and from Sir Robert Hart. The latter enclosed his cheque for one thousand taels "to show his sympathy with what is being done both for body and soul."

Captain Andrews, of the U. S. S. Villalobos, then read messages from the American Legation and the American Consul at Nanking and spoke in earnest commendation of medical missions. He was followed by Dr. George A. Stuart, of Nanking, President of the C. M. M. A., who emphasized the educational value of such hospitals and dwelt on the brotherhood of man and the fatherhood of God, as manifested in His son, the Divine Physician.
This brought the speaking to a close, and the exercises of the first day were ended with the presentation by the Governor of certificates to Drs. Yong and Hung, who have assisted in the hospital during the past six years and completed in English a course in the theory and practice of medicine.

On the second day about one hundred of the prominent gentry, scholars and merchants of the city were similarly entertained.

The third day was set apart for the Christians. It began in the morning with a communion service in the hospital chapel for the first time. In the afternoon the Christians of the China Inland Mission and those of our own were entertained and a special service held in the men's ward, which was filled to overflowing.

The first patients were admitted to the wards Monday, October 28th, 1907.

OPENING OF THE BAPTIST HOSPITAL AT YANGCHOW.

The Yangchow Baptist Hospital was formally opened on Friday, November 29th. When the dispensary was opened, two and a half years ago, there was such a large attendance that it was thought wise to have two services this time. So we invited the Christians in the city to a morning service and the officials and other outside friends for 3 p.m. The morning hour was not very convenient, yet a large number of friends attended, representing all the churches in the city, and Dr. Macklin representing the Nanking friends. There had been so many delays in finishing the building that the time for opening could not be settled till a few days before the event, so there was not time to invite friends from any distance.

The main address of the morning was made by Mr. Chii, pastor of the Methodist Church of this city. Rev. L. W. Pierce, Dr. W. E. Macklin, Rev. A. Y. Napier, Dr. Y. L. Sz, and Dr. Evans also took part.

After the service Chinese tea and cakes were served in the dispensary guest rooms, which were decorated with chrysanthemums. There were no printed programs, but the hymns to be sung were printed on sheets of red paper and handed to each guest.

The afternoon guests were separated. The officials, about sixteen in number, were received in the parlor of Dr. Evans's house, where tea
BAPTIST MISSION HOSPITAL, YANGCHOW, 1907.
YANGCHOW OFFICIAL AT HOSPITAL OPENING, NOVEMBER 29, 1907.
and cake were served in foreign fashion. The other guests were received in the dispensary guest room, where they received foreign cake and tea in the regular Chinese way.

After refreshments the officials were escorted through the hospital, followed by the other guests; and then all went into the chapel for a service somewhat like that of the morning, but more general in character. We sang once and had a short reading from the Bible, but nothing to correspond to the dedicatory prayer of the morning. The hospital had been opened and dedicated in the morning by the Christians. The afternoon meeting was more of a reception given to allow them to examine the hospital.

The main address was by Mr. Mar, a teacher in one of the foreign-style schools of the city. Dr. Macklin, Mr. Pierce, Dr. A. S. Taylor and Mr. Wu spoke. Mr. P. C. Kwoh, a Christian English-speaking Chinaman, who is in charge of the I. P. O., spoke on behalf of the officials.

Every one seemed much pleased with the new buildings and with the way the "Opening" passed off. The day was pleasant, and the only thing regretted was the shortness of time, which prevented our inviting many friends who had expressed their interest in the work.

Our medical work here is situated on a main cross road a short distance inside the South Gate, in a part of the city that is rather thinly settled, giving lots of sunshine and fresh air, yet very convenient to the centre of the city. The residence of the first foreign doctor was finished in March, 1904, and regular work for Chinese out-patients begun in December of that year,—three years ago. The dispensary opening being delayed till the chapel was completed in April. The contract for this first hospital building was signed December 21st, 1905, nearly two years ago. This long delay is due largely to the time needed to make or buy the furnishings, many of which are still to be gotten.

The chapel is 35 by 25 ft. The dispensary, one end of which has an upper storey, is 68 by 24 ft. The hospital is 65 ft. long, including an 8 ft. verandah on the west end. The east end is 37½ ft. wide, and the west end 27½ ft., including a balcony 2½ ft. wide all along the south side. This verandah is a slight departure from the generally accepted style. The advantage of this arrangement is that you have the sun coming into the rooms, particularly the wards, during the cold months, while it does not even touch the walls in the summer months.

The operating room, 14 by 16, is on the N. E. corner, upstairs, having a sky light 7 by 7, with the adjoining room, 12 x 14, for sterilizer, dressing, etc. There are two wards, 22 x 22, much smaller than first
The hospital staff now consists of two foreign physicians—A. S. Taylor, M.D., P. S. Evans, Jr., M.D.—Y. L. Sz, a graduate of Dr. Park's hospital in Soochow, and four pupil assistants, with other regular help. There have been a good many applicants for the hospital. So far two have come. The dispensary clinic runs along about twenty-five to thirty.

It has only been possible to go to out-calls since a trained assistant was secured. He now carries on most of the routine dispensary work. The out-calls average nearly one a day. Just yesterday one of the out-call patients, wife of the Viceroy Chou Fu, said she was going to send five hundred taels for the hospital. We hope this is a promise that the work can be self-supporting before long.

We need a ward for women, and hope to soon need another for men. The present building was planned with the idea of having other wards beside those in the building. There is room both on the east and west for wards built like the present one, running east and west. Then we have recently purchased about 140 "fang" of land just opposite the gate, where we hope to have a house for the first assistant.

The pictures show what the building looks like and the officials (all but one or two) who came that day. The prefect and one of the magistrates are among the number.

We feel that now it ought to be possible to do a good deal to help on the cause of the Master here. This district has always had the name of being very hard territory for mission work. We are hoping that the medical work may be the means of helping change this condition.
The China Medical Journal.

Vol. XXII. MARCH, 1908. No. 2.

The yearly subscription to the China Medical Missionary Association is $1 Mex., payable in January of each year. This includes the journal and postage on the same, whether local or foreign.

All changes of address, departures on and arrivals from furlough should be notified to the Secretary and to the Presbyterian Press. Members are requested to invite new comers to join the Association.

The Editors will be obliged if all those who are building hospitals will send copy of plans and detailed description (in duplicate if possible). These will be loaned, on application, to members who are proposing to build.

Resolution passed by the Medical and Centenary Conferences.

IV.—Whereas, It is of the highest importance that the medical missionary should have a good knowledge of the Chinese language, spoken and written, and should early gain some experience of existing mission methods; Resolved.—To emphasize the advisability of relieving him of all responsible work during his first two years in the country, of requiring him to pass examinations not less searching, if on different lines, than those of his clerical colleagues, and of locating him for a time in an established medical centre.

Editorial.

THE FECAL INVESTIGATION.

We desire to call the special attention of the Association to the fact that the first installment of Fecal Reports is now due. It is hoped that a second series will at once be taken up, but for the convenience of the chairman of the Research Committee, who has the job of tabulation, it is asked that the first series, large or small, be now sent in. They may be sent either to the editorial office, or care of either of the Editors, or direct to the Chairman, Dr. James L. Maxwell, Jun., 31 Hammelton Road, Bromley, Kent, England.

Dr. Maxwell is leaving almost immediately for furlough and will gladly give part of his leisure time to this compilation. We trust that the Central China Branch, whatever they may do with regard to their special investigation plans, will add their whole findings to those of the Association at large.

We repeat that the blanks may be had at any time and in any quantity from the Editors. As far as returns are in, it appears that already some points of extreme interest have developed, and there is every reason to believe that a contribution of real value is to be assured to the credit of those taking part in this investigation.
BUYING IN JAPAN.

This issue contains an advertisement that will prove of interest to many of us who have realized that the Japanese market is cheaper for some hospital supplies and prompter for many than the home market. Almost monthly we have received letters asking for information on the subject and we have supplied it according to our own experience. We have for years past bought all our Japanese goods through the St. Luke's Pharmacy Hospital Supply Department, St. Luke's Hospital, Tsukiji, Tokyo.

"Some time ago this Hospital Supply Department of St. Luke's Pharmacy was opened. The management was led to take this step by the belief that there are many foreign physicians in China, the Philippines, and throughout the East who are desirous of buying their hospital supplies in Japan, but are deterred from doing so, because they find it difficult and often unsatisfactory to deal directly with the Japanese manufacturer. From the time of its inception the results of the undertaking have been so satisfactory that it is now determined to develop this department more fully, to which end a catalogue has been compiled for distribution."

The manager, Dr. R. B. Teusler, is personally known to us, and being a heart and soul missionary, his interest in supplying the best and the cheapest is guaranteed.

With regard to how to buy in Japan, we would say that we have ourselves given up as hopeless, trying to deal at long distance with Japanese firms. We may not understand their methods, but they have done to us repeatedly what we are accustomed to call tricks. Their ways are not our ways. We deal through this agency which knows them, and at any rate is on the spot to see what is what. We do not buy cutting instruments of any kind. They do not cut. But absorbent gauze, iodoform, and iodine, all kinds of instruments that are not supposed to cut, hospital and operating room furniture, and laboratory supplies can be bought in Japan safely and with considerable saving of cost. Cotton, of Japanese make, is cheap, but is so put up that it does not go as far as home cotton, and therefore no money is saved. It is not so dainty either. This has been our experience in the matter, and we heartily recommend the market for the above mentioned goods. The agency is altogether satisfactory and reliable.
PRELIMINARY ANNOUNCEMENT, INTERNATIONAL CONGRESS ON TUBERCULOSIS.*

Washington, D. C., September 21 to October 12, 1908.

"The section work of the congress will be done in the week September 28 to October 3. During that week there will be two general meetings. During the three weeks September 21 to October 12 a tuberculosis exhibition will be open, and a course of special lectures by distinguished men will be in progress. Clinics and demonstrations of unusual interest will be arranged for the whole period.

"The exhibition will assemble illustrative materials from all parts of the civilized world. Members of the congress will find many opportunities to acquire or to increase, by exchange or otherwise, a valuable collection of illustrative objects. Literature forms an important part of many exhibits, and much of this literature can be had on the spot, for the asking, or will be sent, on written request, to any address.

"The committee has decided to award testimonials to especially meritorious exhibits. These testimonials will take the form of medals, diplomas, or money prizes. A cash prize of $1,000 is offered for the best evidence of effective work in the prevention or relief of tuberculosis done by any voluntary association since the last International Congress in 1905. A cash prize of $1,000 is offered for the best exhibit of a sanatorium for the treatment of tuberculosis among the working classes. This must be a detailed exhibit, covering construction, equipment, and management. A cash prize of $1,000 is offered for the best exhibit of a furnished home for the poor in the interest of the crusade against tuberculosis. Several prizes of smaller value will be offered for educational leaflets. These prizes are designed to produce new educational literature.

"A medal is offered for the best exhibit illustrating effective organization of the anti-tuberculosis campaign in any state of the United States. A medal is offered for the best exhibit sent by any state or country (United States excluded), illustrating effective organization for the restriction of tuberculosis. More detailed advice concerning the awards will be published later, or will be furnished on application to the Secretary-General.

* Printed by special request of the Committee.
The papers announced in the official program will be printed in advance, and will be distributed on the day of their presentation. They will be printed in German, French, Spanish and English. The proceedings of the congress will be carefully edited and will be published within three months after adjournment. The section proceedings, with the special lectures, the discussions, and an account of the exhibition, will make four substantial volumes, about 2,000 pages.

The distinguished medalist, Mr. Victor D. Brenner, has been commissioned to design and execute a commemorative medal, which will be used as the badge of membership and as the artistic motif in the awards to exhibitors.

There are two classes of members: Active members pay a fee of five dollars, and they receive, besides the ordinary privileges of membership, the full set of published transactions without extra charge. Associate members pay a fee of two dollars. They do not receive the published transactions, nor vote in the congress. They receive the official badge, the printed matter distributed during the congress and at the exhibition; they share in the entertainments, attend the meetings, clinics, demonstrations, etc., and have the benefit of special transportation and hotel rates.

ASSOCIATION NOTES.

New Members of the C. M. M. A.

Joined through the China Medical Journal:

J. Herbert Sanders, M.D., M.R.C.S., L.R.C.P., Unattached. The Matilda Hospital, Hongkong.
Robert Grierson, Dalhousie Univ. Med. Faculty, Halifax, Can., Canadian Presbyterian, Song Chin (Joshin), Korea.
Editorial.

Mabel Pantin, L. S. A., Ch. of Eng. Zenana, Dong-kau, Ping-nang.
E. Margaret Phillips, B. Sc., M.B., Ch.B., Manch., S. P. G., Ping-yin, Shantung.
A. L. Shelton, M.D., Kentucky Univ., Foreign C. M., Ta-chien-lu, Sze.
H. C. Patrick, M.B., C.M., Glasgow, Private Practice, Shanghai.

NOTES.

Dr. Marcus Mackenzie writes that the C. M. S. are starting a medical school at Foochow. They hope to build this year and open the school late in the autumn. Dr. Sangster and Dr. Wilkinson will also be on the staff and the pupils will be taught in Mandarin. Dr. Mackenzie says: "We are convinced that the time has come to give a more thorough and scientific training to medical students. I have given up my work in Funingfu hospital, and the special sphere occupied by our Dublin University Mission, and the University Mission has permitted me to devote my energies to this new scheme."

It is surely most appropriate that the Dublin University Mission should take up this very urgently needed work. We shall follow its development with our prayers and sympathy, and trust that financial and language difficulties may be satisfactorily overcome, and that the other two Foochow missions may see their way to join in and put the school on a good union basis.

A German medical school was commenced in Shanghai last October. Until the new buildings are erected the work is carried on in two large rented houses. At present a beginning has been made in the preliminary scientific work and in the teaching of the German language. There are eight students in the scientific course and twenty in the German. It is hoped that as the various schools for teaching the German language throughout China are developed the need for this preliminary class will gradually disappear. The
enterprise is well supported and is being undertaken with characteristic thoroughness. The present members of the teaching staff are Profs. Du Bois Reymond, Ammann, and Schlingler.

His Excellency Viceroy Tuan Fang has marked his appreciation of the work by sending a number of students to take up their studies with a view to the formation of an efficient Army Medical Corps.

Our best wishes go with the enterprise. The medical needs of China are so great that all present efforts to supply them are very inadequate.

The Hongkong and China Branch of the British Medical Association has resumed its meetings. On January 23rd Dr. Stedman read a paper on "Notes on a Case of Obliterative Arteritis," Dr. Koch one on "Leprosy, Some Problems;" and clinical cases were shown. All members of the B. M. A. resident in China belong to this branch.

We notice with interest the formation of the Han Valley Medical Missionary Society; the members being Drs. Sjöquist, Hotvedt, and Robert Anderson. We hope to be able presently to welcome this as the youngest and smallest branch of the C. M. M. A.; our three brethren are certainly to be commended for their enterprise. It is an example that should surely be followed by many districts where there is a much larger number of medicals.

How is it that the term 医生 is so universally used by foreign medicos in China? In a fairly prolonged residence in the country the writer has never heard it used by the people untouched by foreign influence, nor has he met anyone who has. In recent Chinese literature it is used for third rate medical men and in Japan it means a medical student. 医士 or 医师 is of course the correct designation; the former being the one of most general application and the best to use, and we should see that it is used of us and by us.

"I am threatening—in my mind—to write a little skit for the Journal on Castor Oil! There is so much about rare work and
refined work, that I am feeling like sending a little about just common work. Have had some fine results in dysentery, typhoid and so on with it as the ‘main thing,’ and so want to give the ‘old reliable’ (castor oil) its dues!”

Pour it in. Just what we want, pace the Editor!

“One of the most noted December events of the Soochow community was the celebration of Dr. Park’s fiftieth birthday. His house was filled all day with the rich and noble of the city, and but for the bad weather the crowd of visitors would have been even larger than it was. Congratulations were showered upon the physician, who has been for twenty-five years so successful in the treatment of all kinds of disease. A “loving cup” was presented by the twenty-six doctors of medicine who took their medical course in his hospital. There were also presents of large and beautiful vases and bowls and of silken scrolls with appreciative mottoes. Not among the least of gifts was one of $1,700 to supply the hospital wards with artesian water. The University cadets marched in by companies and representatives of girls’ schools were present to sing songs of congratulation specially prepared for the occasion.” — N.-C. D. N.

HOW THE SOCIETY MAY AID RESEARCH AND PROMOTE THE ADVANCEMENT OF THE SCIENCE OF MEDICINE IN CHINA.*

After speaking of the immense amount of clinical material passing through the hands of the able men in the Coast Ports of China and in Formosa, the writer asks that these physicians be brought to such an efficient state of organization that

(a). The geographical distribution of the common and uncommon diseases of Eastern Asia may be more effectively determined.

(b). The causes of various common diseases may be made the subject of systematic research.

(c). The intestinal parasite may be hunted on his native heath and his toxicity determined if possible.

The writer goes on to say that there are many in China who, though overworked along all lines, and in spite of isolation, are doing splendid research work. He urges that these men be organ-

*Abstract of a paper by J. Herbert Sanders, M.D., Medical Superintendent of Matilda Hospital, Hongkong, read at the annual meeting of the Hongkong Branch of the British Medical Association.
ized, and that all organizations get into communication through the CHINA MEDICAL JOURNAL (of which he speaks very highly more than once) so that the work of all may count for the common good.

"It is the duty of every doctor to keep himself abreast of the times by the study of books, to devote himself fully to every case of illness that is brought before him, and to apply to all doubtful cases the full extent of the microscopic and bacteriological tests which are in his power."

"Scientific work is a part of our daily occupation, and if we all try and help elucidate some of these mysteries that still surround us, by reporting the diseases we come across, especially rare ones, and the lines of treatment we have found to give good results, we shall then be doing service and helping forward the cause of medicine."

The writer closes by saying: "I do not think it would be advisable to start anything in the way of a medical paper, but we might get in touch with the Editors of the CHINA MEDICAL JOURNAL, Shanghai. Their idea of devoting a part of their paper to extracts from the current medical literature, is an excellent one."

BRANCHES OF THE C. M. M. A.

Central China Branch: Secretary, Dr. J. G. Cormack, Hankow.
Manchurian Branch: Secretary, Dr. W. Phillips, Newchwang.
Korean Branch: Secretary, Dr. H. H. Weir, Chemulpo, Korea.
Shanghai Branch: Secretary, Dr. A. W. Tucker, St. Luke's Hosp.
Kuling Branch: Secretary, Dr. W. Arthur Tatchell, Hankow.

Extract from Constitution of C. M. M. A.

Article V. Local Branches of this Association may be formed by any three active members, provided the Constitution of such Branches is in full harmony with the Constitution and By-Laws of this Association. All members elected to Local Branches shall be ipso facto members of the parent Association. The election of new members to these Branches shall be duly reported to the Association Secretary, and an annual statement of their progress and membership shall be forwarded to him for publication in the JOURNAL.
Resolution by the Committee on Reference and Counsel representing the Boards of Foreign Missions of the United States and Canada.

"The Publication Committee of the C. M. M. A. having made an appeal for an annual subscription from Mission Boards in Great Britain and the United States and Canada, for three years, to enable the Committee to arrange for the translation and publication of suitable medical text-books, the Committee on Reference and Counsel cordially commends the application to the favorable consideration of the various Boards in the United States and Canada having Missions in China."

SUBSCRIPTIONS TO THE PUBLICATION COMMITTEE FUND.

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As the accounts for the past year are not yet to hand from the Press, they and the Reports of Publication and Nomenclature Committees must be held over till the next number.

There is little progress to report as to publications. The only thing one can be sure of in getting books out is delay, so much so that it is better not to indulge in forecasts! Reference to the advertisement page will show what books are on sale. Dr. Ingram hopes that Vol. II of the Therapeutics will be
ready by June. As Vol. II of the Gynecology is larger than was expected, the price of the 2 Vols. will be $2.

A correspondent who is teaching physiology sends some criticisms and corrections on the part he has been going over. He very unnecessarily apologises for so doing! We are only too delighted to receive them. If teachers will only keep a notebook beside them and jot down the page and column in which they find any phrase or character that wants changing, or if they will mark the text-books themselves and send them in, we shall be charmed to receive them. If funds allowed we would offer a prize for the largest list of suggestions and corrections! There is no need to be bashful about it. We are all wading into the same slough, hoping to find firm ground later on.

P. B. C.

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**Book Review.**

**Merck's 1907 Index (Third edition).**

An encyclopedia for the chemist, pharmacist, and physician, stating the names and synonyms, source or origin, chemical nature and formulas, physical form, appearance and properties, melting and boiling points, solubilities, specific gravities and methods of testing, physiological effects, therapeutic uses, modes of administration and application, ordinary and maximum doses, incompatiblea, antidotes, special cautions, hints on keeping and handling, etc., of the chemicals and drugs used in chemistry, medicine, and the arts. 472 pages. Bound in cloth. Primarily, Merck's 1907 Index is published for distribution in the United States, but, owing to numerous requests, a number of copies have been set aside for sale in other English-speaking countries. So long as these reserved copies last, the publishers, Merck & Co., University Place, New York, U. S. A., will send the book to anyone chemist, physician, or wholesale druggist, upon receipt of three shillings and six-pence, or eighty-five cents.

The general scope and character of this book are made sufficiently plain in the sub-title. It is a Chemical Encyclopedia. But, whereas Beilstein takes in all possible chemical combinations, Merck's 1907 Index limits itself to the chemicals and drugs actually on the market, giving in regard to them information comparable to Beilstein's.

To those who have had previous editions, Merck's Index has become almost indispensable. This latest edition is bound to make many new friends, improved as it is by the addition of the newest products of the chemical industry, by the adoption of the latest nomenclature and by the adherence to the most modern authorities.
Report of Local Branches.

KOREA BRANCH.

A local meeting of the Korea Medical Missionary Association was held in Seoul, November 29th, at the home of Dr. J. W. Hirst. Six members were present, and Dr. W. B. Scranton was made chairman.

It was voted to hold monthly meetings; that each member, in turn, act as chairman and that the next meeting be held January 14th, at Dr. Scranton's office, with Dr. Weir as chairman.

Dr. Emma Ernsberger then read a most interesting and helpful paper:—"The best methods of carrying on the evangelistic work in hospitals with especial reference to following up old in-patients." The practical suggestions made both in the paper and during its discussion resulted in assigning to Dr. Hirst the duty of presenting, at the next meeting, a suitable blank "form" which can be filled in by the physician or hospital assistant and mailed to the evangelistic worker living nearest the home of the patient in question with a request to search for him (or her) and look after his or her spiritual needs.

The Seoul branch of the Korea Medical Missionary Association held its second meeting in Dr. Scranton's office, January 14th. Seven doctors and two trained nurses were present; Dr. H. H. Weir in the chair. The paper—"Registration"—by Dr. Hirst, was considered and illustrated under these four headings:

1. Obtaining and presenting such information concerning our patients as to enable us to treat them most efficiently.
2. Securing necessary statistics for knowing and reporting the state of our work.
3. Securing such information as to enable us to follow up possible converts and refer them to the evangelistic worker in their locality.
4. Securing records for scientific study and observation.

Discussion was free, but though general was chiefly centered on the "form" to be filled and sent evanglists. A few desirable additions were suggested to the excellent sample Dr. Weir had presented the author of the paper. Dr. Avison was appointed to perfect the "form" and have a supply printed.

The next meeting is to be at same place on February 11th. Dr. Hirst, chairman. Paper on "Medical Education," by Dr. Scranton.

MARY M. CUTLER,
Editor for Korea Branch M. M. A.

CENTRAL CHINA BRANCH.

The Secretary's Report of the C. C. M. M. A. was adopted by the Association at its meeting on December 11th, 1907.

The following were elected office-bearers for next year:

President, Dr. J. MacWillie.
Vice-President, Dr. R. T. Booth.
Treasurer, Dr. Bretthauer.
Secretary, Dr. J. G. Cormack.

A syllabus for next year has been drawn up, and, when completed, will be duly forwarded to the Journal. Central China still means to keep the ball rolling.
C. C. M. M. A. Report for 1907.

Another year of the Association's life has come and gone, and we naturally look back and ask ourselves how far the Association is still fulfilling the aim of its existence.

1907 has been shadowed by the greatest loss the Association has met since its foundation, in the removal by death of its loved president, Dr. S. R. Hodge. Loving tributes have been paid to his high Christian character, and without doubt his presence is missed at every meeting. We long to look upon his face again; meantime the memory of the high ideal he had as a medical man and a Christian, is a continual inspiration to us.

The year just closed has been most fruitful in keeping us alert to the scientific side of our work. Arising out of our first meeting, a committee on research was formed, and this has been at work gathering information on the subject of "Faeces." At a later meeting, a paper on "The Training of Nurses," by Mrs Rowley, led to the formation of a committee to draw up a course of study and scheme of examination for nurses. The report of that committee was accepted, and the C. C. M. M. A. will yearly appoint examiners and grant diplomas to the Chinese nurses who pass the prescribed examination.

In all thirteen meetings have been held; the last one being the 133rd since the Association began.

The papers read before the Association were fewer than in former years, but up to the average in point of interest. The clinical meetings especially have afforded valuable opportunities in diagnosis of difficult cases, and much help has been gained in that way, while the scientific mind has been stimulated as the cases have been discussed. Provisional diagnosis has sometimes been verified by after treatment and operation; but, also, we have been shown our fallability and mistakes.

Among the cases and specimens shown during the year the following seem worth mentioning:

**CASES.**

- Liver abscess.
- Fracture of clavicle from disease.
- Progressive muscular atrophy.
- Polio myelitis ant. (2 cases.)
- Very large nasal polypi. (2 cases.)
- Lateral Patellar dislocation. (2 cases.)
- Nevus of Upper Lip.
- Ectasia Sclera.
- Tub. disease of cuneiform bones of foot.
- Hygroma of neck.
- Lupus.
- Ankylosis of Lower Limb and Right Arm.
- Fibrous Ankylosis of Jaw.
- Tumour of Abdominal Wall.

**SPECIMENS.**

- Ovarian tumours (2 very large and 1 small).
- Cancer of breast from a man.
- Colloid cancer.
- Sarcoma of jaw.
- Sarcoma of breast.
- Malignant tumour of abdominal wall which had been simple for twenty years.
- Elephantiasis of scrotum, weight six pounds.
- A four months' fæetus.
- Single specimen of fæces containing the following:—
  - Ascaris lumbr.
  - Ankylostomum duodenalis.
  - Trichocephalus dispar.
  - Schistoma Japonicum.

The fraternal interchange of opinion is a great deal to us all and unites us as nothing else would, in keeping before us the dignity and importance of our profession. We are glad to note too that our Association has acted as a stimulus to other places to form branches.

Perhaps the day is not far distant when fully qualified Chinese doctors will be regular members of our Association and share with us the benefits such an Association confers.

J. G. Cormack,
Sec. C. C. M. M. A.
Report of Sub-committee re Examination of Nurses.

1. Examination in all cases to be in two parts, written and practical.

2. That the examination paper for both male and female nurses should include:
   
   (a) General Ethics of nursing (e.g., Introduction Nursing Book).
   
   (b) Elementary anatomy and physiology.
   
   (c) General nursing.
   
   (d) Medical.
   
   (e) Surgical.
   
   (f) Nursing of Infectious diseases.
   
   (g) Eye cases.
   
   (h) Diet and special invalid foods.

   That in the oral part of the examination women nurses shall be, in addition, examined in gynaecological and monthly nursing and nursing of children.

3. That a separate examination with a special certificate attached, be given in the following subjects:
   
   
   b. Male nurses: First aid and ambulance.

4. That the course for the Nursing Certificate should be three years, and that it may not be taken till the candidate is twenty years of age (English reckoning).

5. That examinations for special certificates cannot be taken till at least six months after the passing of the General Nursing Examination. Certificates not to be granted till the candidate can produce evidence of having attended not less than twenty cases in connection with a hospital, and of having had three full years of nursing training. Certificates not to be granted till candidates are twenty years of age.

6. That the nursing examination may be taken any time after the close of the second year, but certificates not to be given till the end of the third year. In order to obtain a certificate, a satisfactory report of general work and conduct must first be obtained, signed by the hospital authorities.

7. That examinations should take place twice in each year—in April and October. Candidates who have failed may enter for the next examination.

8. That while not limiting either teachers or candidates in the use of text-books, should the candidate give an answer in accordance with the Association's book of nursing, that answer must be accepted by the examiner.

9. That every candidate, before presenting himself or herself for examination, must produce a certificate signed by the authorities of the hospital where the candidate has been taught, stating:
   
   (a) That he or she has had two full years' training as a nurse.
   
   (b) That he or she has regularly attended classes for instruction.
   
   (c) That he or she has given satisfaction in both practical and theoretical work and in general behaviour.

10. That a Board of Examiners, numbering not less than three, shall be appointed at each annual meeting of the Association, and that in addition, two others shall be appointed to act as substitutes in case of any of the three being unable to act. Any hospital sending in candidates for examination shall be allowed to send one of its teachers to act as referee during the examination.
The subject of the therapeutics of tuberculosis is so vast and the contributions so numerous that one might easily have a department in the Journal exclusively given up to it. The prevalence of the disease in China, and the difficulties we meet in its treatment, under the ordinary conditions of Chinese home life, would seem to justify the frequent giving of space to this topic. During the past year many articles have appeared which give hope to those who were coming under the spell of the therapeutic nihilists. While drugs must always play but a minor part in the real effecting of cures in tuberculosis, there are some that have definitely been shown to give results. Of these, as well as of certain recent appliances for the treatment of tuberculosis, mention will be made in the following review. For the sake of brevity, only pulmonary tuberculosis will be here considered.

1. Artificial Hyperemia of the Lungs.—Foremost among the methods of treating tuberculosis by other methods than the use of drugs must be mentioned the method elaborated by Staff-Surgeon E. Kuhn, of Berlin (Deutsch Med. Woch., 1906, No. 37, also a later article in Folia Therapeutica, 1907, page 108). The fundamental observation of Rokitansky that in cases of heart disease accompanied by pulmonary congestion evidences of tuberculosis were rarely found in the lungs was the basis upon which Bier built up the whole of the modern treatment by hyperemia that bears his name. In kyphosis also, where the tuberculous mischief is in the spinal column, there is seldom developed pulmonary tuberculosis owing to the congestion that almost invariably occurs. On the other hand, in cases of pulmonary stenosis, patients almost invariably die of pulmonary tuberculosis contributed to by anemia of the lungs. Experimental work has shown that caseation of tuberculous nodules is favored by anemia of the lung tissue, and that the formation of scar tissue proceeds more rapidly if there be a plethora of blood in the lungs. Attempts at producing artificial hyperemia were made long ago. Elevation of the extremities and lowering of the upper part of the body fails because of its tendency to produce hemorrhage. Bandaging of the extremities has been rejected because of the general diminution in the blood mass which follows long continuance of this treatment. A third way, i.e., by opposing a resistance to inspiration, has repeatedly had practical tests, beginning in 1835, when Ramadge of London, having observed that asthmatics and others who inspired with difficulty, on account of tumors in the neck or from other cause, very rarely developed tuberculosis, caused his patients to breathe through a special apparatus with a narrow mouthpiece, and had remarkable results. Kuhn has found that a condition of pure hyperemia can only be obtained by inspiration against resistance, expiration remaining unimpeded; any impediment to expiration is to be avoided in subjects of pulmonary tuber-
culosis owing to the danger of inducing acute emphysema. In a strictly rational method the inspired air must be moistened and warmed. Dr. Kuhn’s pulmonary suction mask meets these conditions. It consists of a light celluloid mask fitting over the mouth and nose, divided by a cross partition providing a chamber each for the nose and mouth. In both, free expiration is permitted by means of expiratory valves in each chamber, while inspiration can only occur through an adjustable slit in the nasal chamber. The use of the mask for about an hour twice daily has been proved sufficient for all therapeutic purposes, and as patients usually take kindly to the treatment, it is more often necessary to persuade them to discontinue too vigorous use than to urge its continuance. The benefits following use of the mask may be thus summarized:—

1. A pre-eminently costal type of respiration is at once enforced, thus gradually widening the chest, especially in its upper part. 2. Emphysema cannot occur because of the brake put upon diaphragmatic breathing. 3. The lungs are, as a matter of fact, kept in a condition of rest, for while the mask is being worn, the room for dilatation at the disposal of the lungs is less than with free unimpeded inspiration. 4. Each breath increases the intensity of the passive hyperemia in the lungs, for, as during the respiratory cycle inspiration is prolonged at the expense of expiration, the amount of blood drawn into the lungs during inspiration cannot be completely returned before the occurrence of the next inspiration. 5. The entire respiratory musculature is strengthened. 6. Danger from hemorrhage is absent; as theoretically proved and practically tested, the hyperemia being the result of suction on the vessels from without and not of increased pressure from within. 7. The heart is strengthened, not only by better circulation through it, but it is disburdened of work by increase of the physiological action of the inspiratory mechanism upon the pulmonary circulation. 8. A considerable increase occurs in the number of red and white corpuscles in the blood and also in the hemoglobin.

Objectively one notes improvement of respiration, diminution in its frequency, cessation of cough, disappearance of bacilli from the expectoration and increased appetite, in addition to the general improvement in condition due to circulatory strengthening. The mask, it is stated, may be obtained in London through Messrs. Maw, Son and Thompson.

2. Opsonic Therapy.—Soutre (Brit. Med. Journal, 1907, i, 1417) fears that in tuberculin, even when regulated by the opsonic index, we have not the cure for tuberculosis of the lungs. But Jeans and Sellards, (Johns Hopkins Hospital Bull., 1907, xviii., 232) reporting a study of nine patients treated with tuberculin prepared by themselves, the treatment being checked by observation of the tuberculo-opsonic indices, conclude that the continuation of this method of treatment is justifiable. In no case was the result miraculous (the series included surgical as well as pulmonary tuberculosis), but there seemed to be a definite relation between the treatment and the improvement of the patient. Hygienic measures are insisted upon, in addition to the tuberculin treatment. Sir A. Wright continues his labors, and many believe with him that we have in this method a foresight of the rational treatment of the future.

3. Diet.—Dr. H. R. M. Landis (Progressive Medicine, December, 1907) feels that diet, if not the most important factor in treating pulmonary tuberculosis, certainly merits as much attention as climate, exercise or medication. He gives the following essential points in the dietary management of the consumptive patient:—The ingestion of foods capable of producing an increase in weight; milk and eggs are more nearly ideal for this pur-
pose than any other food. Specific directions should be given as to the amount and the time the food is to be taken. Above everything else do not tell the patient to eat all he can, and in addition take as much milk and as many eggs as possible. The amount of food should be arbitrarily fixed, but should vary with each patient. If three quarts of milk and six eggs lead to a disordered digestion, the amount should be kept just below the point which will cause such disturbances. The amount of forced feeding should depend on the extent of the disease and the amount of weight lost. Early cases with slight loss of weight, as a rule, will do well on three meals a day with very little forcing. Cases in which the disease is moderately or far advanced and in which there is great loss of weight should have the diet forced to a point compatible with good digestion. Dr. Landis prefers one full meal in the middle of the day and the use of milk and eggs for the rest of the dietary. Clapp (Med. Record, 1907, June 29) advocates three meals a day, at two of which meat is given, and in addition, two and a half to three quarts of milk and six raw eggs. He gives the milk and eggs at breakfast and supper and at lunches (10 a.m. 4, 9 p.m.) Arneill (Jour. of the A. M. A., 1907, July 5) states that the dangers of forced feeding are over-emphasized; the two greatest of these being bilious or auto intoxication attacks and pathological obesity. These ordinary cases of indigestion in the consumptive can be successfully treated along symptomatic lines. Edsall (Bost. Med. and Surg. Journal, 1906, clxv, 26) calls attention to the fact that fats are badly borne by certain classes of patients; among them not a few phthisical cases. They could not take milk, cream or eggs without distress, and sometimes vomited them; but they could, without trouble, take skimmed milk and the whites of eggs, showing that the fat was the disturbing factor. The question may be raised in China, whether objection to milk dietaries that one constantly meets with is really due to fat-intolerance or to habit.

4. Medication (a). The Use of Amyl Nitrite.—A large number of papers have appeared calling attention to the important place amyl nitrite should have in the treatment of hemoptysis. The treatment has been spoken of as Francis H. Ree's (Lancet, November, 1906, and January and April, 1907). At first it appears to be madness to give a patient with a bleeding vessel a drug which is a powerful vasodilator, but even though its action be only transient, it produces such an immediate fall in the general blood pressure that the pressure at the bleeding point is lowered, and there is time for clotting to take place, and the hemoptysis usually ceases almost instantly. Amyl nitrite causes no reactionary pulmonary hyperemia, while adrenalin apparently does, and the former has the further advantage that it does not interfere with coughing, and so places no obstacle in the way of the patient getting rid of the effused blood. Hence it lessens the risk of later septic trouble. Crace-Calvert (Lancet, clxxii, 4362) uses the drug in 3-minim capsules, one of which the patient breaks, inhaling the fumes as they rise. Warning should be given that the consequent feeling of fullness in the head is of no significance. No case of phthisis should be allowed to be without an immediately available supply of amyl nitrite for inhalation. The efficacy of this drug led Otis (Bost. Med. and Surg. Journal, 1907, clxii, 211) to test the action of ergot, especially in cases of low blood pressure or when
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recurrent and continued slow bleeding seemed to indicate a passive rather than an active hemorrhage. The average blood-pressure being determined to be about 126 mm. of mercury for tuberculous patients, his report is based upon cases in which the pressure had fallen to between 109 and 119, having fallen from higher level before hemorrhage. He concludes: "If the blood pressure be high, use the nitrites, but if low, ergotin subcutaneously. I am quite well aware that when I suggest the use of ergot I am uttering heretical doctrine, but in our experience it has apparently proved itself of value in at least a few cases where other remedies have failed."

(b). Intratracheal Treatment.—Mendel (Rev. Therap., 1907, ixxiv, 5, quoted in the Amer. Jour. of the Med. Sci., 1907, cxxxiv, 297) is very enthusiastic regarding the treatment of pulmonary tuberculosis by means of intratracheal injections of from 1 to 10 per cent. gomenol or eucalyptol in oil. Of 200 patients in all stages of the disease, selected at random and treated by this method, 47 per cent. of apparent cures are reported, 33 per cent. of improvement, and 20 per cent. of failures, the latter being individuals in the late stages of the disease. The treatment must be continued for a considerable period of time.

(c). Creosote.—While condemned by many, creosote has never before had so many enthusiastic supporters as at present. Bouchet (quoted in Progressive Med., 1907, December, 281) recommends that it should be given in capsules, on a full stomach, with powdered charcoal as a diluent. Landis (loc. cit.) advises as follows: For each drop of creosote there should be a tablespoon of hot water. The creosote should be thoroughly emulsified by actively stirring with a spoon for at least five minutes. As the larger doses are reached, 15 to 20 drops, the amount of water need not exceed a tablespoonful. The dose should be given 15 to 20 minutes before meals, and prepared in this way, as much as 20 drops can be given three times daily for weeks or months. The claim that creosote has an injurious effect on the kidneys is not supported by clinical experience. It may also be administered hypodermically, dissolved in sterilized oil 5 to 10 per cent., or per rectum (Folia Therapeutica, 1907, i, 111). It may be used as a cutaneous inunction, as in the unguentum creosoti, or it may be administered by intratracheal injection, 10 to 50 per cent. (dissolved in oil). Instead of creosote, guaiacol or guaiacol carbonate (duo-tal) may be used.

(d). Potassium Iodide Contra-indicated.—Landis (Progressive Med., 1907, December, 303) considers it conclusively demonstrated that the administration of potassium iodide to a tuberculous case is a dangerous procedure. In one instance a woman with a suspected apical lesion was given the drug in 5-grain doses every three hours in order to obtain some sputum. She had no symptoms of tuberculosis and the signs at the right apex were indefinite. On the third day her temperature rose abruptly, cough developed and an abundant expectoration containing tubercle bacilli was obtained. Fever of a hectic type continued up to the time she left the hospital three weeks later. The diagnostic use of the drug has been advocated, but there is no doubt that it is capable of arousing a latent lesion to undue activity.
VENTRAL FIXATION OF THE UTERUS.

This subject is fully considered by Dr. R. H. Ingalls in Journal of Obstetrics, May, 1907. He believes that ventral fixation is an undesirable operation, except in cases in which the ovaries have been removed or the woman has passed the period of child bearing. He objects to all forms of ventral suspension with these exceptions. Three cases are narrated, in the first of which the puerperal uterus ruptured posteriorly. The fetus was dead. A supravaginal hysterectomy was performed, the patient recovering. In the second case there was a partial rupture of the posterior uterine wall. A Caesarian section was performed, the patient also recovering. In the third case a dead child was extracted after a very difficult labor by podalic version. In all three cases the attachment of the uterus to the abdominal wall had remained firm, and was separated at the time of operation with great difficulty. The uterus had developed during pregnancy entirely along its posterior aspect, and was thin to the point of rupture, while the anterior wall remained very thick. The contractions of the uterus during labor were reversed in direction and absolutely precluded delivery, except by artificial means. These facts were deemed sufficient to condemn the operation as long as any possibility of child bearing remains.

SIMULATING TUBAL PREGNANCY.

Dr. R. Pichevin in Le Progres Med., June 29th, 1907, calls attention to conditions strongly simulating ectopic gestation and leading to errors in diagnosis. These cases occur most frequently in young women who give a history of delayed menstruation. Suddenly they have pain and have a show of blood, ordinarily of little quantity, but continuous, and sometimes accompanied with clots. The coincidence of an abdominal pain with uterine bleeding following a menstrual delay is suggestive of ectopic gestation. The uterus is not very large, but it may be larger than usual as the result of parenchymatous metritis.

In certain cases it is crowded upwards and to the front against the symphysis pubis. When due to a pyosalpinx, this condition will be explained by an exudate of perianadnexal serous infiltration. Perhaps more frequently the uterus will be more or less fixed in its normal situation. If the patient is bleeding, the cervix may be slightly soft and the os patent.

In Douglas sac a soft elastic tumor is left; sometimes quite voluminous and extending upwards laterally. The breasts are not enlarged, the areolas are not pigmented; Montgomery's tubercles are not visible. There is neither nausea nor vomiting, although these are seldom marked in ectopic pregnancy. The predominating symptoms are, in short, the delay in menstruation and the consecutive bleeding. With the pain there is no evidence of internal hemorrhage. There is neither syncope, chills nor pallor. On the contrary there is usually fever, which may last several days. The masses in the pelvis strongly simulate hematocoele, excepting that palpation may elicit pain. These masses quickly tend to harden. The previous history points to leucorrhea, labor, and especially to artificial abortion.
Besides pyosalpinx, normal pregnancy, complicated by other conditions, may simulate ectopic pregnancy; also fibroid tumors, ovarian cysts with twisted pedicles, and appendicitis.

OCCIPITO-POSTERIOR CASES.

J. A. Harrer (Lying-in Hospital, New York, Vol. III, No. 4) found 1,446 cases of persistent occipito-posterior in 41,000 observed labors at or near full term. Of these, 1,013 terminated spontaneously, while 433 required assistance as follows: Manual correction of the position, 25 cases; forceps, 286 cases; version, 100 cases; craniotomy, 22 cases. The ratio of right to left posterior positions in the cases that rotate spontaneously during labor, was 18:1, while in persistent cases the ratio was 4:1. This shows that the occiput is more likely to rotate anteriorly in the right posterior position than in the left. The membranes ruptured in the first stage in one-fifth of normal vertex cases. While in persistent occipito-posterior cases they do so in one-half of the cases. The perineum is no oftener lacerated than in anterior cases unless the head is pulled through the pelvis with forceps, with the occiput posterior. The maternal mortality was not increased. The foetal mortality was 9 per cent. High forceps with head arrested at the brim gave better results than version. With the head in the pelvis the best treatment was found to be manual rotation, followed by forceps. In performing manual rotation great importance is laid on external manipulation of the child's body assisting in internal rotation of the head. Two signs point to failure of rotation: (a) delay in the advance of the head with strong pains, (b) regular advance of the head with gradually increasing extension.

VAGITUS UTERINUS.

Much scepticism has been expressed as to whether a child can be heard to cry in utero; some believing that a noise resembling a cry must be due to entrance of air or to other causes. There seems, however, reason to believe that such a phenomenon may occur. Peiser in 1903 spoke of fifteen authentic cases. He himself, exploring during labor, distinctly heard a cry for several seconds; then meconium and stained liquor amnii came away. An anaesthetic was administered and a fresh examination made, when the child was once more heard to cry. It was delivered with forceps and cried out vigorously after birth.

Bacura reported in 1904 an instance of vagitus uterinus during version. As the foot was drawn down the foetus was heard to cry twice; the assistants all hearing the sounds which it made. The child after delivery breathed well for three hours, in spite of the fact that it was asphyxiated at birth. After its death, before it was five hours old, dislocation of the cervical vertebrae was detected on dissection. Bacura observed that this case proved that a child might live several hours after its neck had been broken during delivery. That accident, in his opinion, occurred in his case, during extraction—that is to say, after the neck was broken, cries were heard. This case might have proved of medico-legal interest.

Dr. S. Marx recently read a report of a case of vagitus uterinus before a meeting of the New York Obstetrical Society. He had already heard a foetus cry in utero when he introduced his hand into the uterus for version in the course of a labor a few years ago. On the second and more recent occasion the arm presented, the child was large, and version had been unsuccessfully attempted; he was called in, and in
attempting to introduce his hand into the uterus several distinct muffled cries were heard, "pitiful and whining." They were repeated on three occasions, for the hand was passed into the uterine cavity three times before the version was accomplished. There was great difficulty in delivering the aftercoming head, and the child, about 12 pounds, was dead when extracted. Marx considers that the vagitus, which he calls the wierdest call for help that can be imagined, is uncanny, for it means that not much can be done, since most if not all of the children are dead before they can be extricated. Peiser, however, concluded from cases recorded that the prognosis when a cry is heard is by no means unfavorable to the foetus. Marx's case was clearly an accident in a very severe labor; the big foetus was impacted and unsuccessful attempts had already been made by another doctor; possibly many of the cases included in Peiser's series took place in maternities, where version was more readily and skilfully undertaken than in private practice. Dr. Marx stated that the term in question can only be applied when the foetus is actually in utero. Cries when the head is in the vagina are, according to his own experience, not very rare. Very likely vagitus vaginalis has been confounded with vagitus uterinus more than once. — *British Medical Journal*, July 6th, 1907.

**Pathological Notes.**

Conducted by James L. Maxwell, M.D.

**EXAMINATION OF FLUID FROM PLEURAL EFFUSIONS.**

The pathological examination of fluid withdrawn from the pleura aims at distinguishing effusions due to

1. Simple pleurisy.
2. Tuberculous pleurisy.
3. Pleurisy due to a septic micro-organism.
4. Hydrothorax.

It is of course doubtful whether the first of these classes really exists; probably in most cases the infection is tuberculous. Chemical, cytological, and bacteriological examinations may be carried out, and, if necessary, inoculation experiments on animals.

Chemical investigation helps very little in diagnosis; the fluid is generally highly albuminous, and often coagulates spontaneously, but there are no evident differences in chemical composition between the effusions due to different causes.

The examination of the cells in the deposit, obtained if necessary by centrifugalising, will generally help to differentiate a tuberculous pleurisy from one due to a septic micro-organism; in the former lymphocytes are abundant, in the latter polymorphonuclear cells, but the cytological examination unfortunately does not aid us in differentiating tuberculous from simple non-septic pleurisy or from hydrothorax.

Bacteriological examination at once differentiates the septic pleurises even before the fluid has become obviously purulent, the organisms being detected in films and in cultures. The pneumococcus is the organism present in the majority of cases; it is easily distinguished in films, but it must be remembered that this is a delicate micro-organism, and if the pus or fluid is left for some time before cultures are made, specially if it is left in the cold, the pneumococcus may die out and fail to grow in culture. Streptococci
are less commonly present. If they are recovered from cultures they can be differentiated by means of reactions in media into the *Streptococcus pyogenes*, and streptococci of a less harmful nature, occurring normally in the saliva or in the intestine. The presence of *Streptococcus pyogenes* in an empyema is of very grave prognosis. The salivary or faecal streptococci and also the *Bacillus coli communis* are occasionally found in empyemata, which are then usually foul smelling. They may indicate that the empyema really had its origin below the diaphragm, or they may indicate that it communicates directly with a bronchus.

The detection of tubercle bacilli in a pleural effusion is a matter of great importance and of great difficulty. In empyemata due to tubercle, the bacilli may be abundant and easily demonstrated. But it is in cases of simple effusion in suspected cases of early phthisis that the detection of bacilli is more important and more difficult. Examination of the centrifuged deposit will generally fail; examination of the coagulum which so often forms after digestion and centrifugation is more likely to be successful; but the only method likely to lead to satisfactory results is inoculation of the deposit from the effusion into a guinea-pig. Of course this experiment will take about two months to yield a result, but the question whether the patient, who will probably by that time have recovered from his pleurisy, has a tuberculous lesion or not is of such importance that it is to be regretted that the method is not made more use of.

**ON CEREBRO-SPINAL FLUIDS.**

The diagnostic value and importance of making chemical, cytological, and bacteriological examinations of the cerebro-spinal fluid cannot be overestimated in differentiating the several forms of infective meningitis and in distinguishing them from various pseudo-meningitic conditions.

It is always advisable to collect the first few drops of fluid separately from the rest, so that any blood that may have got into the needle in passing through the muscles may be dislodged before the fluid required for examination is collected. The whole operation is of course carried out under the strictest aseptic precautions.

When the fluid comes out under pressure there is usually some inflammatory condition of the meninges present, though not invariably so, for undoubtedly increased pressure may occur in cases of pseudo-meningitis in infants; the meningeal aspect being part of the clinical picture of broncho-pneumonia or other disease.

The value of the chemical examination of cerebro-spinal fluid is practically confined to estimating the albumin present. Normally the fluid contains no albumin or just a trace only. The quantity of albumin is increased in all forms of infective meningitis, and the increase is the more marked when the infection is due to a pyogenic organism such as the meningococcus or the pneumococcus. The fluid in these cases is often turbid, and may be purulent. In the case of infection by the tubercle bacillus the fluid is usually quite clear, and the quantity of albumin not so markedly increased.

The cytological examination is made by centrifuging the fluid and examining the deposit (or lower layer of the fluid where there is no obvious deposit); films being made and stained by Leishman's or other appropriate stain.

In normal fluid, cells are not found at all, or, if any, one or two
lymphocytes and endothelial cells only. In tuberculous meningitis a large number of cells are present, and the differential count shows the presence of a marked lymphocytosis. Lymphocytes will be found to account for as much as 90 per cent. of the cells present.

In pyogenic infections (meningococcal, pneumococcal, streptococcal) the predominant cell present in the fluid is the polymorphonuclear leucocyte.

Bacteriological examination of the fluid is of the very greatest importance. By staining the films by appropriate methods the infecting organisms can usually be found in them; no exception to this statement must be made in the case of tuberculous infection, for, in fluids taken from cases of tuberculous meningitis (clinically such, and confirmed post-mortem) the writer has found tubercle bacilli present in over sixty per cent.

Diagnostically, lumbar puncture and examination of the fluid is of the greatest value; in skilled hands and under aseptic conditions it is a perfectly harmless procedure.

As a therapeutic agent lumbar puncture has not taken the place that originally was expected of it, though the withdrawal of fluid and relief of pressure is often attended with temporary beneficial results.—*St. Bartholomew's Hospital Journal*, October and November, 1907.

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**Correspondence.**

**Editors of Journal.**

**Dear Sirs:** In consequence of Dr. Somerville's recent illness and enforced furlough, I will you be asked to act as secretary for this year to the Kuling Branch of C. M. M. A. I should be obliged if all doctors, who purpose being at Kuling this year, would kindly inform me by post at their earliest.

Faithfully yours,

W. ARTHUR TATELL.

HANKOW, February 21st.

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**Dear Dr. Jefferys:** I am sending you just a line or two to let you know that I have recently had three cases of *ankylostomiasis*. All three were raftsmen and came from Peshui (白水), a place still further up the Siang River than Hengchow, between Hengchow and Yung-chow. Of course the diagnosis, in each case, was made by finding the characteristic ova in the stools. The anthelmintics relied on were: (1) *Thymol*, and (2) *Eucalyptus oil*; the former given in three grs. xx dose, and the latter given in a m. xxx dose, combined with *chloroform* m. xlv, and *castor oil* dr. x. The *eucalyptus oil* mixture is certainly very much pleasanter to take than the *thymol*.

I am sending you this note re the presence of *ankylostomiasis* in this neighbourhood, as I believe you are trying to collect facts regarding the distribution of disease in this country. We know from Dr. Logan that *ankylostomiasis* is present in the north of the Province of Hunan, and you may take it from me that it is present in the South also. Hoping that this fact may be of some little value to you, and with kindest regards, I am,

Yours very sincerely,

ERNEST C. PEAKE.

HENGCHOW, January 27th.
DEAR SIRS: On first thought “lady physician” was the form that seemed most fitting. Perhaps I should have said without or before “thought,” for after exercising thought I find that “lady physician” is the term I have almost invariably heard used and that whether the words “lady,” “woman,” and “female” convey similar impressions or not seems to depend upon the character of the known individual to whom they are applied or upon the tone of voice of the person using the terms when speaking of one who is a stranger to me.

In cold print “Dr. X., a female physician,” does not present a different picture than “Dr. Y., a woman physician,” or “Dr. Z., a lady physician,” for we all know that the poorest, most ignorant woman in the land may be a perfect lady, while among those called lady there are not a few unwomanly women, and that, whether woman or lady, both are FEMALES.

If we are womanly, ladylike, it matters little what people call us, even though they forget (?) to give us our title of “doctor,” for which we had to work as hard and pay as much as did our brothers for the same title and which, in their case, people seldom “forget” to give them.

Suppose “a new for such and such a station” is a teacher or evangelistic worker? what do you call her? them? Call us — doctors the same, if there must be uniformity.

One of the “——Doctors.”

DEAR SIRS: I have nothing to report that is either scientific or extraordinary, but suchian Woman’s Dispensary. it is often the little things that help us in the long run more than the greater ones.

For example, take such a simple and cheap thing as carron oil. This I make with native bean oil and lime water. We all know of its use in burns, and it acts as well on any other inflamed surface. I have had most satisfactory results with it for internal piles. In these cases I combine it with ergot until the more acute symptoms subside. I keep small glass syringes, which I sell for twenty cents apiece to the patients for injecting the oil.

I have cured internal rectal chancreoids by injecting this oil combined with boric, and it will relieve almost any rectal irritation.

COD LIVER OIL.

During our famine last spring, some firm sent us a barrel of cod liver oil for the sufferers. It came too late for distribution, so we are giving it out in our dispensaries.

I have never had it for free distribution before, and it is wonderful how it seems to suit the Chinese. Anaemic underfed babies, asthmatic patients, and those suffering from chronic bronchitis, or those improperly nourished from any cause, are wonderfully helped in a short while.

RINGWORM OF HEAD.

A foreign boy contracted a case of this in its most stubborn form. After trying everything to no purpose, the following prescription proved effectual:

Acid salicylic ... gr. 30.
Alcohol ... ... oz. i.
Chalk pulv. ... gr. 60 to 100.

The head is shaved and each spot covered with this. The application should be made once daily and a skull cap worn, which is kept sterilized by frequent boiling. The head will require shaving every two or three weeks. This treatment is simple, clean, painless, and thoroughly effective. I find some of the Chinese willing to wear the caps.
MENINGITIS.

It may be interesting to some to hear of a case of cerebral meningitis that ended in complete recovery without any lesion so far as can be seen. A missionary’s baby, aged fifteen months, after returning from Kuling the earlier part of September, had a spell of cholera infantum, which after several days developed slight dysenteric symptoms. Her condition was grave from the first. On the eighth day she became unconscious, which was complete for ten days.

She continually rubbed her eyes and forehead, rolled her head on the pillow, cried out, and had retraction of the head. The mucopurulent discharge from the eyelids, indication of optic neuritis, was quite profuse. Her return to consciousness was so gradual that it took eight days for her to really recognize things, and during that period and for two weeks longer her restlessness was extreme, but no symptoms of chorea.

She slept neither night nor day. Bromides had no effect whatever. Chloral in 3 gr. doses would put her to sleep, which would last for an hour or so. Her spasms were of the hysterical type, which I find does occur in true meningitis.

An interesting feature was, although no fever, temperature rarely more than 100° per rectum, that for the ten days of unconsciousness she had no secretion from the nose and no tears.

The Chinese make so much of these signs that her nurses would constantly watch and would say ‘just wait until she sneezes and all will be well.’ At the first return of consciousness tears appeared, then in a day or so secretion came in the nose, and strange to say the day we felt certain her convalescence was established, she sneezed. Her nurse clapped her hands and said: ‘The disease is over,’ and so it proved.

Her convalescence proved very, very slow. I will take it as a special favor if any doctor who has treated a similar case would write about it, either through this Journal or to me personally.

Dr. J. W. Bradley saw the case with me, in consultation.

Mrs. B. C. PATTERSON.

SUCHIEN, December, 6, ’07.

Personal Record.

BIRTH.

To Dr. and Mrs. W. A. HEMINGWAY, on the twenty-fifth of January, 1907, at Taiku, Shansi, a daughter.

On February 3rd, at Yung-chun, Fuhkien Province, the wife of J. PRESTON MAXWELL, M.B., F.R.C.S., of a daughter.

MARRIAGE.

At the Wesleyan Chapel, Hongkong, on the 28th December, 1907, by the Rev. C. BONE, Rev. PHILIP REES, B.A., B.Sc., M.B., of the Wesleyan Hospital, Wuchow, to ETHEL CRASKE, eldest daughter of Mr. and Mrs. OSWALD CRASKE.