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A. A Rare Form of Leprosy.



B. A Typical Case of Tubercular Leprosy at a late stage.

HIAO-KAN LEPPER HOME, 1907. (See Page 210.)

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## GYNAECOLOGICAL PRACTICE IN CHINA.\*

By AGNES L. STEWART, L.R.C.P. and S.E., M.D. (Brux.), Hankow.

The treatment of women's diseases is certainly attended with difficulty, first because many patients object to vaginal examination, though this is not so great a difficulty as formerly, but even now many prefer to do without treatment rather than be examined; another difficulty is that the patients want symptoms cured rather than disease; the cure of the disease being often too radical a measure for them.

Of symptoms, as far as my observation goes, dysmenorrhœa and dragging down pains are *not* common, but amenorrhœa, too frequent menstruation, rectal and sacral pains, and leucorrhœa, this last especially in elderly women, one is consulted about constantly, and on examination one often finds nothing abnormal to account for the trouble. A married woman of 22 was sent to me for examination. She had never menstruated, nothing abnormal could be found to account for it, the uterus was not small, and she was not markedly anæmic. She was given an iron and arsenic tonic, of which she may have taken three or four bottles, and within a few months was menstruating regularly. Possibly marriage wakened up her dormant uterus.

### EXTERNAL DISEASES.

External diseases of vulva and vagina constitute a large percentage of our cases—vulvitis of every type, venereal warts, abscess of Bartolin's gland, erosion of the os, and leucorrhœa, with occasionally an external new growth. One such case was interesting on account of the size of the tumour. The notes of the case are as follows:—

\* Conference paper, May, 1907.

Mrs. Ts'un, widow, 46. Fibroma.—The patient is a strong woman, who has always had good health. There is a pedunculated tumour hanging from the right labia to below the knees; it is hard, lobulated, and freely moveable. Length 19 inches, width 15 inches. Skin is lax and free from inflammation; inguinal glands are not involved, and the patient looks well. Chloroform was given and the tumour dissected out of a three-inch incision. The tumour weighed  $12\frac{3}{4}$  lbs. and was a fibroma.

#### UTERINE DISEASES.

(a). *Of inflammations*, endometritis is often met with, and usually yields successfully to treatment. Even in this condition dysmenorrhœa is not often complained of, though one has seen membrane passed in form almost a complete cast of the uterus. Curetting is rather fashionable with us just now, as some patients have given birth to children after the operation; the improved condition of the uterus allowing them to carry the child to term.

(b). *Uterine displacements*.—Of these prolapse is the most common, and this is easy to understand when one remembers Chinese methods of delivery, the sitting posture with exhausting bearing down efforts of the patient, the method used of a woman sitting behind with her arms round the patient forcing down the uterus, and finally the awful plan of pulling on the cord to remove a retained placenta. On several occasions, when called to remove a retained placenta, one has found the woman sitting up, with the anterior vaginal wall and cervix outside the vulva and the midwife *still vigorously pulling on the cord*. Some of these cases, if treated at once by the replacing of the organ, and after by the use of a pessary, ultimately recover. But others who do not get foreign treatment, often go on for years with complete prolapsus uteri. Last year a woman of 50 came to dispensary who had had complete prolapsus for twenty years. She came not to get the prolapsus cured, but to get an ulcer which had formed on the extruded part healed. She absolutely refused all treatment but a lotion. Rest, pessary, operation, were all scorned, and so she gained nothing.

Several cases have been cured by the use of a ring pessary and anterior colporrhaphy. This is a simple proceeding, and does not cause so much narrowing of the vagina as posterior colporrhaphy, which is a consideration, as many of these patients are at the child-bearing period of life. The operation of anterior colporrhaphy consists in dissecting off a piece of the mucous membrane of the anterior vaginal wall and bringing the sides of the raw surface together with stitches. The shape is not very important, but an oval dissection, with the long axis of the oval parallel to the long axis of the vagina, is best, as the object is to narrow the outlet of the vagina.

The use of a pessary is a very debateable point in China. Even in large cities at home, patients are often careless about coming to have them cleaned. I remember digging out something that felt like a stone from a woman's vagina in Dublin. It was a ring pessary that she had worn for two years, and was thickly encrusted and was very difficult to remove, being buried in the tissue about it. In China one ought to be careful, I think, not to use a pessary unless one can, if necessary; send for the patient if she fails to put in an appearance for herself.

Other displacements are rare. A few cases of retroflexion and retroversion come to mind, but nearly always it was in connection with a gravid uterus, and one was sent for because of retention of urine.

(c.) *New growths of the uterus* are common, but those one is called upon to treat are usually malignant. Fibroids rarely come to one's notice. Polypi, with long pedicles, are more frequently under one's care, because sometimes they can be seen, or excessive bleeding is caused by them during labour. But on the whole these are not considered serious enough for the patient to consent to operation, and she will only swallow drugs when troubled with hæmorrhage.

Cases of cancer and sarcoma of the cervix and also of the body of the uterus, very frequently come for help, but as a rule *too late* for operation. The refinements of early diagnosis of uterine or cervical cancer are usually not required. As a rule the smell of the patient as she walks into the room is sufficient to indicate the disease, and also its advanced condition. I have never yet managed to persuade a case suitable for operation to have amputation of the uterus, and so have had only palliative measures to resort to.

#### INJURIES.

*Injuries during child-birth* are very common, and a good many cases come to get these injuries repaired. Rupture of the perinæum is common everywhere, but here nearly every woman one examines has a ruptured perinæum. Unless unusually severe, I do not think any Chinese woman would consent to have an operation for it, as it seems to cause them very little, if any, inconvenience.

Another result of tear is, however, more serious to them, and calls for treatment. That is when the tear heals by granulation, occluding the vagina and causing atresia vagina. I remember several cases where there was a complete septum joining the two labia. This was divided, and the vagina not being implicated, the parts healed and there was no further trouble.

Another case had but a pinhole opening which it took some time to find. It was gradually dilated with probes and sinus forceps until it was of a size to admit a finger. Incisions were then made on both sides, cutting towards the tuber ischii and a glass speculum inserted. One must keep in a plug and make a large opening, as the parts contract down again, the contraction going on for a month or six weeks after operation.

One case of congenital atresia vagina comes to my mind.

Mrs. L., aged 19. Her mother came to say that her daughter was "the Bride of Heaven," but as she was newly married they wished her to become an ordinary woman. Patient has been married three months, and is subject to fever. Complains of abdominal pain, and has never menstruated. Great pain every month. The abdomen on inspection is tense and large. There is resonance in both flanks, and just above the brim of the pelvis is a central globular swelling. Dullness and tenderness on pressure over the pelvis. Shape of vagina is externally natural. No bulging of the hymen. There is not the slightest opening into the vagina *Per Rectum*. A mass, rounded, globular, hard and tense, and fairly moveable, can be felt within  $1\frac{1}{2}$  to 2 inches of anus. Apparently a complete septum between the vagina and the uterus.

A false vagina was made, and the knife being plunged into the sac, the usual treacly fluid evacuated. There was a little subsequent fever due to parasites, but the patient recovered and menstruated regularly for years, and was to some extent able to fulfil her functions as a married woman.

Tears and sloughs of bladder and urethra are common results of Chinese midwifery, so one gets a good many cases of vesico-vaginal and urethro-vaginal fistula leading to incontinence. When a fistula has formed by sloughing from pressure, there is not incontinence until the slough separates, and as it is more often the result of pressure than of direct injury from muscular effort, the usual history is of long and difficult labour, and about a week later incontinence. The diagnosis is made by physical examination by exposing the vagina with a speculum.

The curative treatment of a fistula is a plastic operation. It is best to wait some time—six weeks to three months after parturition—as the tear may close spontaneously, and also because involution ought to be complete, and so the tissues be firmer and less vascular.

#### OVARIAN CYST.

No lady medical can be long in China without meeting another class of case—that of ovarian cyst. Ovaritis is not often complained of, and perhaps cystic ovaries are not really so common, but their size impresses them firmly on one's mind. Every year one meets three or four such cases, but only an occasional one—say one out of five—is

willing for operation. The only ones that have consented to operation during my charge have had cystic parovarium, and one had a solid ovarian tumour. It has certainly been a case of gathering experience little by little. It is hardly necessary for me to go over the steps of the operation to such an assembly, and I will content myself by giving two cases and raising an important question for discussion.

In the general teaching of the home operators, tapping the cyst previous to removing it is strongly condemned. But these very large cysts with which one has to deal in China, cysts that displace the heart, would it not be better, in such cases, to empty the cyst at one time, sew the cyst wall to the abdominal wall and remove the cyst in a couple of days? This question is asked because it has occurred to some of us that death, said to be due to shock, is due rather to the vast mass of fluid and tumour taken away; than to ordinary shock following operation, no satisfactory reason being otherwise found for death in some cases. Below are described two cases, both alike in many particulars. Why did the first one recover and the second one die? In both cases the operator was the same.

CASE 1, 1900.—Mrs. Hsiung, aged 21, married, seems cheerful and happy, but is a very thin woman. From the time she was a young girl the patient thinks the abdomen was enlarged. Menstruation regular in time, scanty in amount, very dark in colour and associated with dysmenorrhœa. Has been married four years, has one child a year old. During pregnancy abdomen enlarged very rapidly, and has since grown a good deal. No menstruation since. Weight of patient, 176½ lbs. The abdomen is much distended, with enlarged surface veins; umbilicus flush with surface. Dulness over the tumour and resonance in both flanks. Circumference at the umbilicus fifty-four inches.

At the operation, which lasted two and a half hours, the only adhesions were to the anterior abdominal wall and to a small piece of bowel. There was fever ranging from 99 F. to 102 F., and several lumbricoids were voided. The wound healed by first intention, and the patient's weight a month later, when she had put on a great deal of flesh, was 95½ pounds. The tumour must therefore have weighed between 80 and 100 lbs.

CASE 2, 1905.—Mrs. Li, aged 21, married. The patient has had a hard life, with heavy work and many beatings from her mother-in-law. Commenced to menstruate at 16; after a year it became scanty and dark in colour; has ceased for two years. About five years ago she noticed a small swelling on the left side, and this gradually increased in size. Last year had a "bad attack of abdominal pain," probably peritonitis, and nearly died. Occasionally faints. Patient looks older than her years, is thin and emaciated and eats very little. Abdomen is universally distended, but in the left lumbar region there is a daughter cyst. Girth at umbilicus is 51 inches; 6 inches above it is 52 inches.

P. V.—Os is smooth and small. Uterus small and to right; ovaries cannot be felt; uterus apparently not adherent. Tumour is on left side. Heart is displaced

upwards to third interspace, and there is venous congestion over the chest and abdomen. Aortic sound is *not* pure, though there is no distinct murmur. Sometimes pulse misses a beat.

The operation lasted one and a half hours. There were adhesions to the anterior abdominal wall; these were peeled off with a gauze pad; adhesions to omentum were plentiful; these were tied, outside the abdomen, and cut through. There was very little bleeding throughout the operation, but some ascites. Four ligatures were placed on the pedicle, as it was very thick. The patient's pulse at the close of the operation was 84. She was put back to bed under the care of two very competent nurses; she soon recovered consciousness, and recognised the nurses, but was not really clear in mind. Pulse was 100. Seemed thirsty and restless, and hot water was given in spoonfuls by the mouth, and saline injections into rectum, and subcutaneous injection into axilla. Pulse improved. About 4½ hours after operation the patient suddenly fainted. I was on the spot at once, but she could not be restored. The abdomen was opened at once, but the pedicle was not bleeding. One could only say "death from heart failure"—but why? Would she have recovered if we had first removed the bulk of the fluid? This question has often presented itself since the operation, and I should be glad to receive the opinion of the Conference on the point.

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## UTERINE FIBROIDS, OVARIAN CYST.

By CECIL J. DAVENPORT, F.R.C.S., Shanghai.

### I. UTERINE FIBROID.—PAN-HYSTERECTOMY.

Mrs. Liu, aged 41, admitted May 20th, 1907, into the Shantung Road Hospital, suffering from an abdominal tumour.

*History.*—The abdomen was noticed as increasing in size six years ago. The presence of a tumour was first discovered in the region below and to the right of the umbilicus. Of late its growth has been more rapid. The menstrual periods have been regular, but more scanty than formerly; some pain with micturition at these times. Has had three children. No pregnancy for eight years.

*Condition.*—A healthy, well nourished lady. Pulse, temperature, heart, lungs, all normal. *Urine* 1020, a suspicion of albumen.

A hard, smooth, freely moveable tumour occupies the lower abdomen, about the size of a seven to eight months' pregnant uterus. It is placed rather more on the right than on the left. P. V.—Uterus

high up and intimately connected with the tumour. No uterine sound passed.

Seeing that there was no increase of the menstrual flow, that it had first been noticed on the right side, that its growth was rapid, and that it was freely moveable, I diagnosed it to be a growth of the right broad ligament and advised removal.

*Operation.*—At 11 a.m., 23rd May, with the help of Dr. W. J. Milles, the patient was given chloroform. Exploration through the usual three-inch incision proved the growth to be uterine, and it was decided to remove the uterus. The incision was extended two or three inches above the umbilicus and the tumour delivered through this with some little difficulty. No adhesions were present. The neck of the uterus was long and well defined. Clamps were applied external to the appendages, which were none too healthy, and the broad ligament tied step by step with thick silk on either side until the uterine vessels were secured close to the neck of the uterus. Anterior and posterior flaps were then made, and the uterus removed by an incision about the middle of the neck. Silk stitches united these flaps, so closing the upper opening of the cervical canal. The cut edges of the broad ligament were then drawn together and secured as far as possible, using the silk ligatures already in situ. The abdominal cavity was then sponged dry and its walls closed with silk worm gut sutures. A dry dressing was applied. This was changed on the sixth and tenth days, when all stitches were removed. No vomiting followed the operation, and the patient went out well in a month, having had no temperature above 99.2 and no pulse rate above 86.

*Remarks.*—The tumour weighed  $6\frac{1}{4}$  lbs. and appeared to be a general enlargement of the fundus and anterior uterine wall—possibly taking on a malignant nature. The posterior wall was thin and flabby. After removal, a sound entered into the uterine cavity three and half inches.

## II. UTERINE FIBROID.—SPONTANEOUS EXPULSION.

Mrs. Chu, aged 43, came to out-patients' 22nd July, 1907. On examination it was found she was suffering from a most offensive thick yellow vaginal discharge, with a dark, congested, ulcerated mass distending the vulval entrance. A hard elastic tumour was impacted in the vaginal canal; its presenting part giving all the appearance of a foetal head presenting with a caput succidanum. The finger could not be passed into the vaginal canal.

She gave the following history :—

*History.*—For three years she had been troubled with menorrhagia ; at times passing clots. Had noticed a hard lump in abdomen over the pubes. Five months ago was aware of “something coming down,” and as this advanced the abdominal tumour disappeared. Had no pains resembling labour, but as the mass descended and distended the vagina, suffered pain. The descent had been much more rapid during the past two months.

*Diagnosis.*—Polypoid fibroma of uterus, undergoing expulsion. Patient was advised to come into hospital. She went home to consult her relations.

*Subsequent History.*—29th July. Patient carried in, again looking very ill. Temperature 101.8 ; pulse 120, evidently suffering from severe septic intoxication. Some vomiting. On examination the foetid odour was simply awful—a black, gangrenous mass protruded from the vagina ; the mass being as large round as a well developed arm and reaching half way down to the knee.

*Treatment.*—The patient was put into a continuous hot bath and given ergot and hydrocyanic acid. The mass very shortly came away, and in a week the patient returned home well.

Vaginal examination showed the uterus to be a little bulky, the os somewhat patent with erected edges. No discharge.

### III. OVARIAN CYST.—OVIOTOMY.

Mrs. Liang, aged 40, a small, frail lady, admitted on 28th August, 1907.

*History.*—For six years the abdomen had not been normal. For the last year it had been “big.” Youngest child 9 ; a miscarriage previously. *Menstruation* scanty, no pain. Some leucorrhœa. *Bowels* costive, hard, once in four days ; *urine* scanty, passed twice during day, not at night. Takes a little opium. Feels better after a little diarrhœa. Some swelling of the legs the past few days.

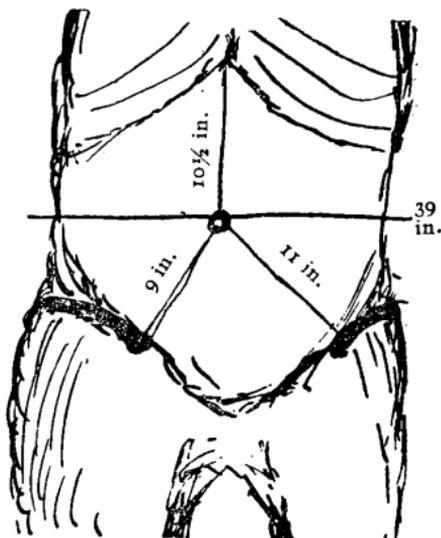
*Condition.*—Thin and pale, with sunken cheeks and a haggard expression. *Pulse* regular, hard, 90-96. *Urine* 1010, slight trace of albumen. *Heart* and *lungs* natural. *Abdomen* tensely distended and prominent. Large veins marked in hypogastric and epigastric regions. Quite dull, except in extreme flanks and below arch of thorax.

*Measurements :*

(See Diagram).

Examination P. V.: Uterus high up, fornices full. The cystic thrill was so marked that it pointed to the cyst being unilocular.

*Operation* 3rd September, with the help of Dr. Marshall, chloroform administered. On opening the abdomen through a three-inch incision the cyst was found adherent in front. The incision was extended three inches upward. After puncturing and draining the tumour, which consisted of



one large and many small cysts, containing over two gallons of porter-brown fluid, the adhesions all over the front abdominal wall and under the costal arch were stripped off. No further adhesions were found of any account except in the pelvis. These were ligatured and the pedicle tied in two halves with strong silk and the tumour removed. The tumour was from the right ovary. No bleeding took place, the abdominal cavity was sponged dry and the abdominal walls were united with silkworm gut and dry dressed.

In the evening and next day the patient was rather restless, mouth dry, a little vomiting, great pain over costal arch, oppression in breathing; pulse hard, 106-108, temperature 100-102 over. Hot fomentations over the costal arch relieved the pain; hypodermics of quarter grain of morphia were given two to three times a day; after twenty-four hours, during which time only sips of hot water were allowed, a little rice water was given. On the fifth small doses of calomel and soda bicarb were given three times a day, also hydrocyanic acid and acetate of ammonia.

On the fourth and eighth days the wound was dressed and stitches removed. But for some superficial stitch abscesses and a little skin excoriation the wound healed perfectly.

On the fourth day the patient felt so well she indulged in some pear, which caused a little dysenteric diarrhoea.

She left hospital within a month well and strong; cured of her opium and tumour also. The measurement round the abdomen at the umbilicus on leaving was twenty-four inches and the umbilicus to the other points five inches.

**LARGE OVARIAN TUMOR, WITH 60 Lbs. OF FLUID.**

By R. T. BOOTH, M.B., B.Ch., D.T.M. and H., Hankow.

Patient, a Chinese woman of about forty-five years of age, an opium smoker, with history of enlargement of abdomen for several years. History of manner of growth of swelling and measurements made diagnosis of ovarian tumor from left side easy. She entered hospital on 14th November, and it was decided to operate on the following Tuesday. On the 15th, however, she developed a temperature of 100.2°, so it was necessary to postpone operation for a time. In the meantime she was carefully prepared and generally toned up.

For two days before operation special attention was paid to diet and bowels, and enemata and douches were given daily. On the morning of 26th November she was put on the operation table, and, Dr. Cundall giving chloroform, with the assistance of Dr. Morley, of Tehngan, I operated. The incision was made in the middle line, commencing about two inches below the umbilicus and extending downwards for four inches. Reaching the peritoneum all hæmorrhage was stopped before opening it. The peritoneum was then picked up with two dissecting forceps and a cut made with a pair of scissors; a rush of ascetic fluid followed immediately. The peritoneum was then slit up and down on a Hey's director; the edge being seized with special catch forceps. A hand was then passed in as far as possible to free tumor wall from peritoneum, to which the former was adherent above. Abdominal towels were then packed in around the edges of wound between tumor and abdominal wall and the cyst punctured with a large Spencer wells trochar. No fluid escaped at the sides of the trochar; all passing through the tube into a large "kang" under the table.

As the fluid escaped and the walls of cyst became lax, large forceps, Nelaton's and others, were clamped in the cyst wall, and by aid of these the assistant lifted the tumour more and more out of the wound until sufficient fluid had escaped to allow several inches of cyst wall to come out and hang over the edge of the wound and thus drain. The flow of escaping fluid was controlled, so that the emptying of cyst should not affect the heart and respiration. When nearly emptied the opening in cyst was clamped and a hand was passed in to ascertain the extent of adhesion. It was found that the lower half of the tumour was perfectly free from adhesion, but the upper half was adherent to the peritoneum, to the under surface of liver, to the omentum and stomach. None of these adhesions were dense; all being easily peeled off with a

sponge, and little or no oozing took place, except in one and two places and then it was easily controlled by pressure with a hot sponge. (It was necessary to prolong the incision above the umbilicus several inches in order to get room to deal with these adhesions.) It was found that a subsidiary cyst occupied the upper segment of the large cyst, and subsequently it was found that the contents of this cyst had become purulent, explaining the adhesions being located in this part, while the remainder of the parent cyst wall was quite free. Before freeing the deepest adhesions the pedicle was ligatured and the tumour cut away from it, thus enabling the adhesions above and behind to be more easily dealt with.

All adhesions being freed the tumour was removed and the toilette of the peritoneal cavity commenced. Sponges wrung out of hot sterile water were used and all the cavity was carefully gone over. Following the advice given by G. Smith and others, "when on doubt, drain," it was decided to drain, as the adhesions had been fairly extensive, though none had been dense. A Keek's glass drainage tube was inserted into Douglas' pouch and left protruding from the lower end of the abdominal incision. The peritoneum was brought together with a continuous suture of Pagenstecher's celluloid thread and the muscles were next united by a continuous chromic gut suture; the skin being finally brought into apposition with interrupted sutures of silkworm gut. No antiseptics were used from beginning to the end of operation, everything being aseptically prepared, with the exception of the scalpels, which had been previously soaked in pure carbolic. The operation from first cut to last suture took  $1\frac{3}{4}$  hours. The 'kang' which held 60 'chin' of fluid was two-thirds full; there being in all about 60 lbs. of fluid removed. Dressings were put in position with separate dressing surrounded by indiarubber sheet for the drainage tube. All dressings were held in position by broad bands of adhesion plaster, and finally a many tailed bandage was put on over all.

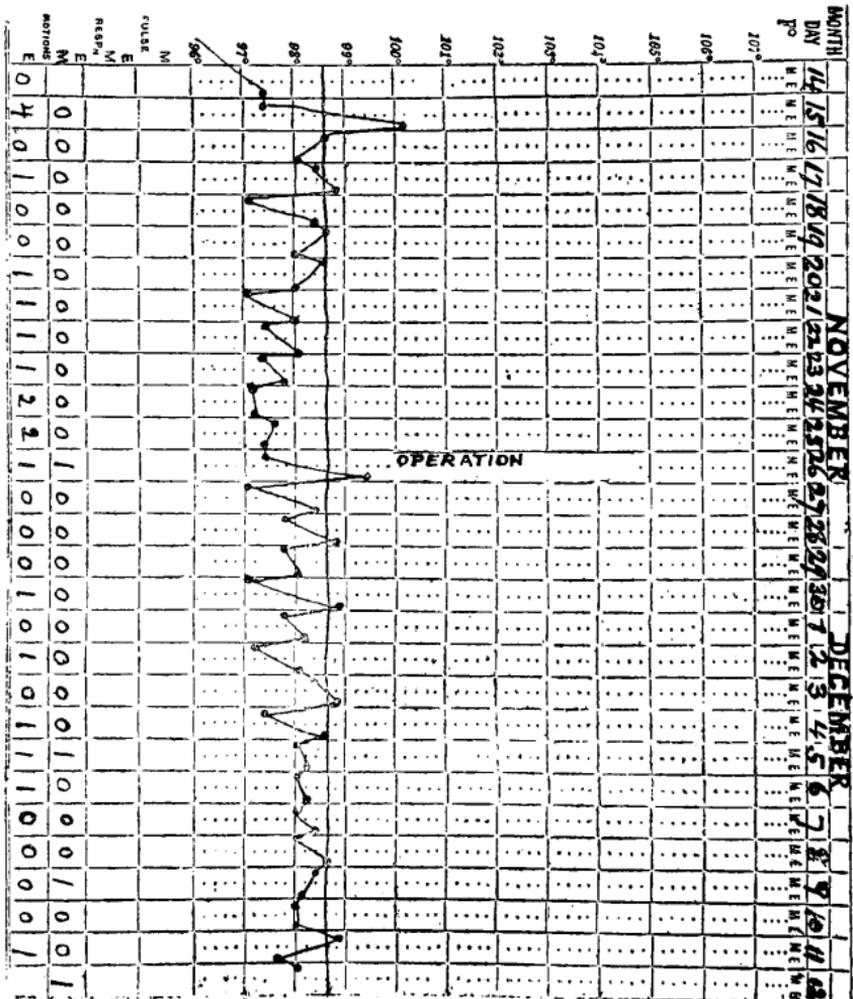
The patient was then removed to her bed, which had been arranged in the corner of the operating room. Her subsequent history was uneventful; a rise of temperature the night after the operation being a good sign, showing that she was reacting well. Her thirst and restlessness was controlled by large enemata of warm saline solution, to which was added her quantum of nupenthe to counteract the craving for opium.

The dressing around the glass drainage tube was opened in twenty-four hours, but as there seemed to be still some amount of sanguineous fluid in Douglas' pouch it was decided to leave it in position for another

twenty-four hours. Everything being sweet and pure, and the amount much less the next day, the tube was removed and the edges of the wound brought into apposition by a deep silkworm gut suture passing through muscles and skin, but avoiding the peritoneum. Dressings were changed a week later and half the sutures removed, and the wound was soundly healed. The remaining sutures were removed seven days later, and strapping placed right around the abdomen.

After the first four days the patient was gradually brought back to ordinary diet and the recovery was entirely uneventful. Her husband, who was a tailor, made her a strong abdominal belt, and with this on she left the hospital in about six or seven weeks after operation.

TEMPERATURE CHART OF ABOVE CASE.



REPORT OF A CASE OF ECTOPIC PREGNANCY.  
RUPTURE, OPERATION, RECOVERY.

By ELIZABETH REIFSNYDER, M.D., Shanghai.

Abdominal sections, so far as *our* experience here goes, have been done almost exclusively for the removal of large tumors, mainly ovarian. The Chinese have had a great fear of opening the abdomen, and many are still possessed of so many fears in this direction that it is a most common thing to be asked if it is our intention to open the abdomen when a woman gets on the table for a most simple examination, and while the knowledge of the successful removal of tumors may inspire confidence in one class of patients, with many it certainly does make them very fearful of us.

Hence we are not surprised that so long as the woman is not inconvenienced and can get about and do her work, if *poor*, she will not seek relief, and it is usually because she has become a burden to herself and to her family that she and they are willing for the operation to be done. Even then the majority wait until they suffer greatly from weight or pressure and become, as has been stated, "a burden to everybody."

One case operated upon here some years ago had not walked for two years. Her husband's family got tired of her and gave her barely enough to eat. She lived in spite of them. Wonderful powers of endurance. She lived through her operation, and her son, a lad of nine years, born after her operation, came to see us not long since, and her father-in-law has just brought us about a bushel of peanuts. While at first it was the poorer class, the ones who had to work for their living so to speak, who came for operation, now we have different classes—well educated and wealthy. Conservatism is giving way, as will be seen by the fact that of the four abdominal sections done since the middle of July, three were on private patients. Two others, also private, came for operations, but were found to be inoperable cases, one because of a bad heart. It is difficult to make the Chinese believe what they cannot see. Being deceived for centuries, and deception still going on, why should they believe when told their condition. Christianity and education will bring confidence and belief, as was the case in the subject proper of this paper, namely a case of ectopic pregnancy which came under our care recently and of special interest because the first patient to be operated upon for this condition, although there have been several others in the past. In two cases, complicating normal pregnancy, the tumors

that were most distinct disappeared ; other symptoms, apart from the boggy masses felt, were shock, hemorrhage, pain. Both patients came into the hospital, were under observation for some time and recovered without operation, for we know that after rupture if all the blood supply, or nearly all, is cut off from the fetus, it loses its life and if very small may be absorbed.

One of these cases Dr. Garner saw with me some years ago. The patient came in in collapse. The boggy mass on the posterior cul-de-sac was so large—a hæmatocele—that the midwife thought the woman was about to be confined. This woman's friends were told of the gravity of the case and the possibility of necessity for operation. The mass was absorbed, the woman having fever for some weeks, no doubt septic. She went on to confinement, however, and had no sepsis at that time.

The other case entered the hospital May 16th of this past year. Last child born two years ago ; not menstruated since, except a month ago a few times bloody discharge. Two nights before admission "fell down in a dead faint," her husband said, who speaks excellent English and who is a wealthy educated gentleman. Patient had been having pain in the lower part of the abdomen for the past ten days ; most severe the last three days, and it was the excruciating pain that caused her to faint. Dr. Newell saw this case with me. A boggy mass was felt to right of uterus. Uterus large. Patient was kept in bed and the husband was willing for the operation. Mass disappeared, and about a month ago a son was born ; no sepsis.

While in these two cases cited, there were no operations to prove the diagnosis, the symptoms were so marked that there was no doubt in our minds as to their being ectopic pregnancies. In a recent number of the *American Journal of Obstetrics and Diseases of Women and Children*, Dr. Thos. Kelly reports a number of cases of ectopic pregnancy, and after saying that "ectopic pregnancy is a condition in which the fertilized ovum is prevented from reaching the uterine cavity and develops to a greater or less extent at the point of arrest," he further remarks that "nearly all these gestations are primarily tubal, but may become abdominal, or broad ligament, pregnancies by rupture of the tube, or tubal abortion. The pregnancy may occur in any part of the tube. Interstitial when in that part of the tube which penetrates the uterine wall ; isthmic when near the middle of the tube ; ampullar when near the outer end, and this last mentioned is said to be the most common, and may terminate in tubal abortion ; the ovum being extruded into the peritoneal cavity. The isthmic is more common than the interstitial, and usually terminates

by rupture of the tube." The case to be reported is of the isthmic variety and is as follows :

Mrs. S., aged 33, was first seen by myself about 9 p.m. on December 17th. When her husband came for me he said he feared his "wife was having a miscarriage and would I go and see her." She had not menstruated for seventy days and had had a decided hemorrhage that afternoon. Attributed the miscarriage, as it was that, to the lifting of a trunk several days before. I found the patient fairly comfortable. Pulse and temperature normal. Uterus was large; some pain, not much. No appetite and not able to sleep, was what she complained of mainly. On inquiry found she had two children: one fifteen years old, one nine, and it was when she said "no children for nine years," that ectopic pregnancy suggested itself. Mrs. S.'s pain had begun the 15th. A Chinese doctor was called the 16th, another one the 17th. Neither did any good; the pain continued. When I saw her the night of the 17th, as I said, fairly comfortable, I gave her a pill of opium and camp.  $\frac{1}{2}$  gr. each, and strongly advised coming to the hospital, so that she could be watched. I did not then think it was ectopic pregnancy, as I had not examined thoroughly. Only satisfied myself there was nothing in the uterus that would have to be removed immediately. Saw the patient again the morning of the 18th and told her husband to bring her to the hospital, for if anything happened she might die before I could get to her, living so far away. She came the afternoon of the 18th; very comfortable that day and the next; no fever, pulse normal, only no appetite and unable to sleep. Bowels moved with small doses of calomel. Some slight vaginal discharge. Patient was kept in bed awaiting developments. I could get no history of any membrane coming away at any time. While it would have been more satisfactory to have made a thorough examination as soon as admitted, in the light of our present knowledge I am glad nothing more was done, for I feel sure the woman's condition later would have been said to have been caused by manipulations. Morning of the 20th, about 10 o'clock, after getting up to urinate, she was seized with severe pain, vomiting, and developed almost immediately numbness of hands and feet. Pulse very feeble, 120. Sent for husband at once, and while waiting, injected both breasts with normal saline solution. Below the umbilicus and occupying the left side of lower abdomen was a mass dull on percussion and showing rigidity. About noon got the husband's consent to operate, although he was told his wife might die on the table. He was most intelligent; had lived in America some twenty years, and fully understood what was to be done and was in the operating room during the operation. The patient

was not told of the operation, neither were her daughter or any of the other women relatives. The husband evidently did not feel called upon to tell them.

No radial pulse when anæsthetized. Had been given brandy by mouth and strychnine hypodermically while waiting for husband to arrive. Operation about 1.30 p.m. Just before the operation both breasts again filled with normal saline solution. As soon as the abdomen was opened a number of large clots appeared and a number of others were removed—from the left side, mainly. Pulse steadily worse. Patient in Zendelenberg position from beginning. Left tube and ovary removed. Tube found ruptured about at middle. Tissues very friable. A quantity of normal saline was left in the abdomen after all clots that could be found were removed; the abdomen well flushed. After the abdomen was closed both breasts again filled with normal saline. Pulse 180, imperceptible at wrist. By 4 p.m. slightly felt at wrists and 162. Nothing special about the after-history. As the patient had not been told she was going to have an operation, knew nothing about it. Thought she was given the anæsthetic because of the strange feeling in her head. It was not until the following morning when she wanted the abdominal bandage removed that she was told her abdomen had been opened.

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## A SEVEN-DAY FEVER CHARACTERIZED BY TOXAEMIC JAUNDICE.

By HAROLD BALME, F.R.C.S., England.

The occurrence of jaundice in connection with febrile conditions is a phenomenon of considerable interest, presenting problems which form a striking commentary to our present ignorance on the subject of human metabolism. We commonly speak of such jaundice as hæmatogenous, and content ourselves with the explanation that it is toxæmic in origin, but as to the nature of the toxins, or the method by which the normal circulation of the bile is upset by their presence in the blood, we are still absolutely in the dark. Not until our methods of studying toxins and their effects are more advanced shall we be able to find a satisfactory explanation of such a phenomenon. Meanwhile it may be of interest to chronicle such cases as they occur, so as to have as complete a chain of clinical observations as is possible.

We are at present all familiar with certain diseases of a more or less infective nature in which jaundice, presumably toxæmic in origin,

is apt to form a fairly prominent symptom, such, for example, as yellow fever, malaria, relapsing fever, or that rare but most fatal condition—acute yellow atrophy. There is, again, another group of fevers in which the appearance of jaundice is much more occasional, as for instance, typhus, enteric, scarlatina, etc. But there is yet a third group, probably quite distinct from either of these two, in which jaundice, together with pyrexia and general toxæmia, seem to be the leading characteristics, and it is with this group that the following remarks are concerned.

In 1886 Weil first described a form of acute infectious disease associated with pyrexia and jaundice, a condition which has since borne his name. According to Osler, Weil's Disease usually attacks males of from twenty-five to forty; butchers, for some strange reason, being said to be specially liable to the complaint. It occurs mostly during the summer months and in large cities; the condition being ushered in with high fever, severe headache and pains in the back and legs, whilst on the second or third day jaundice, varying from a slight tinging of the conjunctiva to a marked pigmentation of the whole body, makes its appearance. The liver and spleen are both as a rule somewhat enlarged; the former being tender. The fever shows marked remissions, and usually continues for ten to fourteen days, after which there may also be slight recurrences, though definite relapses are rare. Albuminuria is common, and there may occasionally be cerebral symptoms, but as a rule headache and great prostration are the only marked characteristics of the disease, apart from the jaundice, and recovery usually takes place.

Since Weil's Disease was first described as a separate entity, there have appeared from time to time in the medical journals descriptions of various epidemics of a more or less similar nature occurring in different parts of the world. An account of one such epidemic was given in the *British Medical Journal*, December, 1901, similar to Weil's Disease in everything, except the nature of its onset, which appears to have been quite gradual and marked by drowsiness, headache, and various abdominal symptoms. The incubation period of this fever was stated to be six to seven days, whilst jaundice was an invariable accompaniment. In 1902 similar epidemics in Peking and Tientsin were described by Curwen in the same journal, whilst in its issue of September 17th, 1904, a further account was given of two epidemics in Egypt and South Africa respectively. The former of these, described by Sandwith, appears to have been of a much more serious nature; the mortality actually reaching thirty-two per cent. The incubation period was not usually

longer than two days, the onset being quite acute, with rigors, muscular pains and vomiting, whilst jaundice usually appeared on the third day. Albuminuria, epistaxis, internal hæmorrhages, and petechiæ were common symptoms, though hæmaturia was rare. The symptoms disappeared quite gradually, and there was often a secondary rise of temperature during the third week.

In the latter of these two epidemics described by Matthias as having occurred among the South African troops, the course of the fever much more closely approximated that which has already been given for Weil's Disease. The onset was acute, the fever remained high for eight to twelve days; whilst, in a few cases, there were relapses. No deaths were recorded.

How far these various epidemics represent different infective fevers, or how far they spring from a common stock, it is at present impossible to say, and the only object of the present paper is to record a somewhat similar epidemic with some of the problems which it has raised.

The epidemic in question occurred during the spring and summer months of the present year in the city of Tai-yuen-fu. This city is situated in 37° 55' N. Lat., where the various diseases of tropical China, such as malaria and the like, are almost or quite unknown. The epidemic was mostly confined to one quarter of the city, where extensive digging operations were being carried on in connection with the repair of the main streets, and, in fact, most of the patients appear to have been labourers employed on this work. There are some people who maintain that such upturning of the soil is frequently the signal for an outburst of fever, but how far this is a case of *post hoc*, and how far of *propter hoc*, one cannot of course speak. Being mostly confined to men of this class, the age incidence naturally corresponded fairly closely with that which is given for Weil's Disease, though we did not hear of any butchers being attacked!

Unfortunately our opportunities of studying the epidemic were seriously limited by the fact that the reputation of the foreign doctor in these parts does not extend very far in the case of diseases which are non-surgical, so that only a very small proportion of the total number of patients attacked came under the care of Dr. Broomhall and myself; the remainder either consulting their own Chinese doctors, or nobody at all. It is therefore impossible to attempt anything like a complete description of the condition.

So far as could be judged from the few cases in which we ourselves saw the fever spread, the incubation period seemed to be from seven to fourteen days; the onset of the disease being an acute one, characterized

by high fever and severe headache, often associated with muscular pains in the back and legs. Jaundice appeared on the third to the sixth day, but was usually preceded by a marked injection of the conjunctival vessels, which proved a most valuable diagnostic sign. The liver was invariably tender, though not as a rule enlarged, whilst the spleen was commonly increased in size. Some of the patients had a slight cough which, however, soon passed off. No gastro-intestinal symptoms were present; the patients all being constipated, whilst the tongue remained uniformly moist, though somewhat coated. No albuminuria was found in the few cases that we tested. In two cases in which an examination of the urine was made for the presence of leucine and tyrosine, the result was negative in one, whilst in the other the crystals were not sufficiently definite to be diagnosed with certainty. No blood-changes were found in the patients examined.

But by far the most prominent and important symptom in each case was toxæmia evidenced not merely by the soft, "toxic" pulse and general disability, but also by the profound effect which it influenced in some instances upon the nervous system. As will be noticed by a reference to the cases described below, this produced serious, and even fatal, cerebral symptoms in some patients, the extreme headache going on to signs of acute meningitis, succeeded in turn by coma, Cheyne-Stokes breathing, and death. Even in those cases which recovered, convalescence was protracted by an amount of debility out of all proportion to the length of the actual attack or the severity of the initial symptoms, and apparently only to be accounted for by the intensity of the toxæmia.

Another very definite characteristic of this epidemic was the crisis which occurred with almost unfailing regularity about the seventh day. In some cases it was delayed until the eighth, in others, of a somewhat milder nature, it took place on the sixth, or even as early as the fifth, but in every case it was present, the temperature dropping rapidly to sub-normal on the one hand, in such cases as recovered, or, on the other hand, the symptoms becoming more and more acute and the disease terminating in death. No secondary fever occurred in the few cases we had an opportunity of watching.

Such appeared to be the typical course of this fever, so far as we were able to observe it, but whilst stating this, there is a most important additional fact which needs to be recorded, and which may, or may not, have a most important bearing on the subject. At the very time when this epidemic was at its height in the city, there were also present numerous instances of an infective fever which presented marked points

of similarity with the above, and, at the same time, equally well marked differences. This again was a seven-day fever, commencing with an acute onset characterized by high fever and severe headache, often associated with muscular pains in the back and limbs. Here also there was frequently (though not always) a suffusion of the eyes, and epistaxis was a fairly common symptom, whilst the amount of toxæmia was fairly intense.

But the marks of differentiation were almost, or quite, as clearly defined as the points of similarity. In not one of these cases was jaundice present, nor did any of them develop any cerebral symptoms, whilst in every case there were well-marked relapses; the first usually occurring at an interval of about a week and lasting five or six days, and the second, or third (where present) after still smaller spaces of time and of an even less severe nature.

In each case therefore we have to deal with a seven-day fever, with similar onset and initial symptoms, but whereas, in the first variety, we have an additional factor presented in the form of jaundice (and even cerebral symptoms in some instances), from which the second variety is entirely free, the latter in its turn possesses its own peculiar characteristic in the presence of these definite relapses.

It will be obvious to all readers that this latter form of fever is almost, or quite, identical in its clinical course with that which is usually described as "relapsing fever," and our only reason for not definitely diagnosing it as such lies in the fact that in those cases where a blood examination was made we failed to find the spirillum of Obermeier. If, however, this was merely due to insufficient examination or unskilful methods, and these cases were in truth cases of relapsing fever, an interesting problem is at once raised. According to the descriptions of that fever given in Osler's System of Medicine and Quain's Dictionary, jaundice is a fairly common accompaniment, whilst both authorities state that during epidemics there may be cases in which there are no relapses. The question therefore at once suggests itself: Are these cases of toxæmic jaundice also to be considered as sporadic forms of relapsing fever? Or are they in some way related in origin to that fever?

On the other hand, arguing from the fact that the spirillum of Obermeier was not found in any of the cases examined, although searched for carefully at the height of the fever, another problem may be presented. Are these two forms of seven-day fever to be regarded as one disease (quite distinct from relapsing fever) in which jaundice may or may not play a part, and in which relapses may or may not occur? It might perhaps be suggested, in favour of this theory, that

the cases in which jaundice did not occur, represented the milder form, whilst in the more severe variety the occurrence of cerebral symptoms was to be ascribed to the more intense toxæmia. But this suggestion is not quite borne out by the facts of the case. It is certainly true that in the second group described above—that in which jaundice was absent, but in which relapses occurred—none of the patients ever gave rise to grave anxiety, and all of them recovered. But the converse does not hold good, for the first group of cases, those in which jaundice was present, did not by any means all prove serious, and some of them followed a more or less mild course.

There must be many members of our Association who have had opportunities of watching epidemics of a similar nature in China, and whose observations are probably far more complete than those briefly given in this paper. Could their experiences be recorded, they should prove of considerable value to us all, and it would be interesting to know whether in other parts there has appeared to be a similar connection between the two forms of fever here described.

The following is a short summary of a few of the typical cases in the recent epidemic:—

Case I.—U Tien-yung, aged 24, admitted to hospital on January 13th, with injury to elbow. On January 17th, complained of headache, fever and slight jaundice. No other symptoms.

The jaundice cleared up in four days, but the headache and pyrexia persisted and he developed a cough. On January 22nd he discharged himself from hospital against advice, but returned next day, owing to his "weakness." The temperature was still raised and patient complaining of headache.

On the following morning (January 24th), the headache was said to be intense, and in the course of the day grew worse, in spite of treatment. By the afternoon he was drowsy, but this soon gave place to symptom of acute meningitis, with raving delirium. This continued until 10 p.m., when it was succeeded by coma and Cheyne-Stokes breathing until death took place.

Case II.—San Ho, aged 30. Slept on same k'ang in hospital as case I. On January 27th, patient had high fever, severe headache, and injection of conjunctival vessels. About two days later jaundice appeared. No rash. No enlargement of liver or spleen. Patient extremely weak.

Headache and jaundice persisted, with gradual rise of temperature, which reached 105.6 on the night of February 1st, patient being delirious. On the following morning the crisis occurred, temperature dropping to 95.7. No further symptoms appeared, but patient was extremely weak for two or three months.

Case III.—Gao Swan-swan, aged 16. First seen on March 18th, complaining of having had a shivering fit four days previously, with severe headache and fever. Pains also in back of neck. Had had jaundice for two days (?). Also slight cough. Temperature 103. Full pulse. Deeply jaundiced and with suffused eyes. Constipated, liver not enlarged, but tender. Spleen enlarged. No rash.

March 19th.—Temperature 102.2. Headache slightly better, but still has stiffness (?) of neck muscles. Sweating freely. Liver and spleen as before. Bowels open after aperient, and some round worms passed.

March 20th.—Temperature 101.2. Pulse much softer and toxæmia more intense. Patient almost in typhoid state. Only understands when shouted at. Respirations quite easy; but some rhonchi in lungs. Expectoration viscid. Suspicious crystals in urine, very like leucine balls. No tyrosine crystals found.

March 21st —Deep unconsciousness all day. Cheyne-Stokes breathing later. Died in afternoon.

Cases IV-VI.—Lao Han, aged 55 (?). April 14th. Has been ill three or four days with fever and extreme debility. Slight amount of jaundice present, with tenderness over liver. Symptoms remained almost unchanged until the seventh day, when the temperature dropped to normal. No signs of cerebral irritation. Patient unable to walk for nearly two months, owing to debility.

On May 3rd, a second occupant of this home developed the same fever, and he was followed by a third on May 16th. In each case jaundice was present; in the former on the fourth day, in the latter not until the sixth. Temperature dropped to normal on the fifth and eighth days respectively. Their symptoms and signs corresponded closely with those described above. Both recovered after a protracted convalescence.

Case VII.—Tsao, aged 25. First seen on April 26th, when he had been ill for seven days. Headache and jaundice from first day; also cough, with thick expectoration. Delirious five days. Epistaxis yesterday. Said to be passing dark motions. Ecchymosed, jaundiced conjunctivæ. Large pupils, reacting freely. Deep delirium, with spastic movements and apparent tenderness over muscles of back of neck. K. J.'s free—not increased. Moist râles in lungs. Tenderness over liver. Spleen not felt. Died the same night.

Case VIII.—Yü, aged 29.—On May 14th, taken ill with headache, pains in legs, fever and vomiting. The following day had temperature of 104°, with quick soft pulse. Moist, furred tongue. No other signs.

May 17th.—Temperature and pulse as before. Slight cough. No rash. No jaundice. Liver and spleen normal.

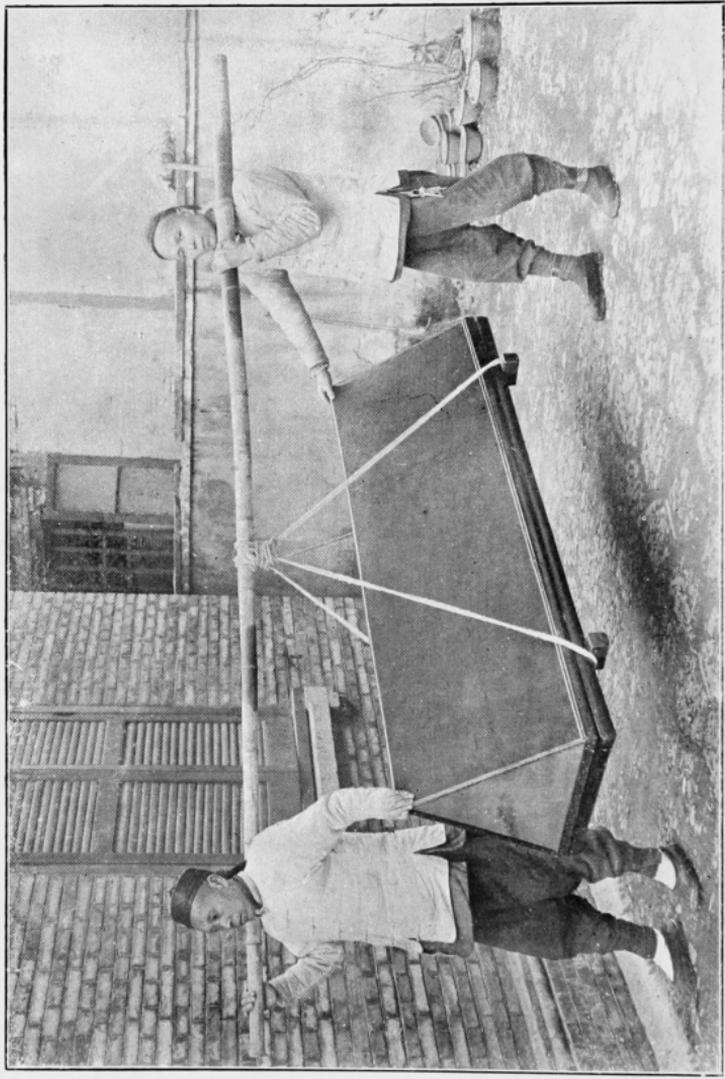
May 18th.—Epistaxis to-day. Pulse getting softer, temperature remaining unchanged.

May 19th.—Eyes suffused in early part of day, whilst later there was definite jaundice. Liver tender. Spleen enlarged. Headache more severe and toxæmia deeper.

May 20th.—Temperature 102.5, pulse 120, very soft. Patient much worse, deeply unconscious all day, becoming almost comatose, and towards night with slow stertorous breathing, slightly rhythmical and approaching Cheyne-Stokes respirations in type. Deeply jaundiced and considerable enlargement of spleen, but no other abdominal signs. Patient fed with teaspoon all day. Frequent hypodermic injections of camphor and of various cardiac stimulants.

May 21st —Crisis in early hours of morning, after patient had appeared moribund and pulseless. Temperature subnormal; pulse during day extremely soft and weak and intermittent. Considerable sweating. Slow return to consciousness.

From this date patient very slowly regained strength, but was unable to move about for two months. During this time he developed an abscess in the right thigh, and also a paresis of the intestinal muscles, amounting almost to chronic intestinal obstruction. These complications doubtless helped to retard his progress, but for many weeks his extraordinary debility, and loss of flesh, bore eloquent testimony to the intensity of the toxæmia he had received.



AMBULANCE SUITED TO NATIVE LIFE IN CHINA.

## AN AMBULANCE FOR CARRYING PATIENTS, SUITED TO THE CONDITIONS OF CHINESE LIFE.\*

By H. W. BOONE, M.D., Shanghai.

For some time we have needed a conveyance for accident cases and for cases of serious illness. The rich General Hospital for foreigners has a large four-wheel ambulance which requires a horse and harness and a driver. It is a very costly affair. Then by sending to England we could get a smaller wheeled vehicle to be pushed by a man walking between the shafts; cost about \$100.00.

This did not suit me, because I wanted a conveyance that would do in Shanghai and at the same time could be used in the Chinese towns and villages and on the country roads where a wheeled vehicle could not go. Something *light* and *strong*, weather proof, and that the Chinese would know how to manage; that could be carried slung on a bamboo and supported on the shoulders of two men. A bamboo and bearers can be found anywhere in China and they can be had at short notice.

The conveyance, in order to be popular and in demand throughout China, should be neat, *strong* and *light*, and not too expensive; for I hoped that it would come into general use, and that it would be adopted in the Chinese army for carrying wounded men.

After some thought on the subject, I have had made an ambulance which I wish to show to the members of the Society. The lower part is a frame which resembles an ordinary Chinese bed-bottom with the cocoa fibre netting across it. The frame is of hard wood, 6 ft. long, 25 inches wide. Underneath it there are four wooden pieces, 2 inches square and  $4\frac{1}{4}$  inches long, strongly screwed on to the frame, two at 1 foot from the head end, two at 1 foot from the foot end. The frame rests on these four feet clear of the ground, and these pieces project 2 inches beyond the sides of the frame, so that the ropes by which it is slung, may have a firm support and cannot slip. On this bed frame rests an upper frame of hard wood with no fibre netting in it. Four round pegs project upwards from the lower frame and fit into four holes in the upper frame to hold it steadily in position. A tent-shaped frame going up to an apex eighteen inches above the bed, supports a strong waterproof canvas cover of enamelled cloth, brown like the wood work, which is covered with Ningpo varnish. To ensure free ventilation the canvas cloth at the head end only goes up 9 inches, the upper space is covered with perforated zinc. The entire foot end is covered with perforated zinc. This lets in both air and

\* Read before the Shanghai Branch, February, 1908.

light, but it does keep out rain. We find that two good coolies can carry a man in this ambulance at the rate of four miles an hour without any jolting; really the patient is less shaken than he would be in a wheeled vehicle.

The frame can be carried into any room in a Chinese house. An easy way to carry a patient down a steep and narrow Chinese staircase is to put him on a chair, tilt him backwards, carry him down the stairs and then lay him on the frame work.

The frame is narrow and can be taken upstairs, the patient bound to the frame by his long sash and then carried down the stairs. It is easier to carry him down on the chair.

All the wood work of the ambulance is neatly rounded off, so as not to hurt the fingers when handling it and to prevent chipping off of the wood.

We fold a blanket three folds and lay it on the bed frame. When necessary we spread a waterproof sheet over the blanket.

This ambulance is neat, very strong and serviceable, affords ample protection from the weather and is of a kind that the Chinese readily understand and know how to manage. Its cost is \$10.50 Mex.



## METAZOAN PARASITES IN TROPICAL PATHOLOGY.

(Review by R. T. BOOTH, M.B., B.Ch.)

At the December Meeting of the Society of Tropical Medicine and Hygiene, London, Dr. L. W. Sambon, Lecturer to the London School of Tropical Medicine, read a most interesting and instructive paper on the "Part played by Metazoan Parasites in Tropical Pathology." He first briefly sketched what was known by the ancients as regards the role of entozoa in the causation of disease. Endemic anæmia was ascribed 1,550 years B. C. to an intestinal worm. And from the papyrus it seems certain that the site and nature of the worm was known. There is a prescription of a remedy for a patient, "who has in his abdomen worms which are produced by the āāā disease."

Aristotle mentions the bladder worm of the hog. The "fiery" serpent which plagued the Israelites in the wilderness was no other than *Dracunculus Mediniensis*, the "guinea" worm. The description of this worm given by the great Byzantine surgeon, Paul of Aegina, might have been written at the present day. *Sarcoptes scabiei* was known to the ancients from remotest antiquity. In spite of descriptions of this parasite,

which appeared from time to time from Aristotle onward, its existence as a cause of *itch* was utterly ignored by physicians, who continued to explain the disease by strange humoral theories up to 1834, when a Corsican student, named Francesco Renuccio, hearing the existence of the mite denied at the St. Louis Hospital, Paris, proposed to show it forthwith, and extracted it from the epidermis of a patient with a point of a needle as he had seen the peasant women of his country do so many a time.

Professor Sambon went on to say that within recent years the list of metazoan parasites affecting man had been considerably enlarged and it was of the utmost importance to notice that some of the species which hitherto had escaped notice were widely distributed, extremely frequent, and highly pathogenic. He then briefly reviewed the history of the *Anchylostomum Duodenale* from the time of discovery by Dubini in 1838 in the duodenum of a peasant woman at the Ospedale Maggiore in Milan. In 1851 Griesinger showed that Dubini's worm was the cause of Egyptian Chlorosis, and later Wucherer proved that the Brazilian disease called 'Oppilatio' was likewise an anchylostomiasis. In 1879 the disease was recognised in Calcutta, but the disease had been no doubt known to the natives from time immemorial. Harita in his work called the '*Harita samhita*,' which was believed to be older than *Sushruta*, spoke of anæmia under the name of *Panduoga* and stated that it was sometimes caused by swallowing clay. Geophagism, as is well known, occurs almost invariably in association with anchylostomiasis. The world wide distribution of endemic anæmia indicated the possibility of more than one type of disease in the various regions. In 1888 it was shown that the Brazilian worm was not provided with hooked teeth as described by European authors, and Stiles in 1902 showed that in the Southern States endemic anæmia was due to a new species of the closely allied genus *Necator*, for which he proposed the name *Americanus*, believing it to be special to the American Continent. Since then, however, Looss found it in the pigmies in Central Africa, and suggests that in all probability it was taken to America at the time of the slave trade. Leiper has shown too that it is widely distributed on the Gold Coast and in material received from Uganda, Rhodesia, India, Burmah, and Ceylon.

In 1905 Raillet and Henry described another new *strongyloid* which might also be an important agent in the causation of tropical anæmia. The parasite belonged to the genus *Triodontophorus* established by Looss in 1901 to include two new *sclerostomidæ* of the horse, characterised mainly by the presence of three peculiar teeth arising from the floor

of the oral capsule. In 1905 also Raillet and Henry named and described a new parasite—*Oesophagostomum brumpti*—belonging to the sub-family *Sclerostominæ*. It was discovered by Brumpt post mortem in cyst-like nodules in the walls of the cæcum and colon of a negro, thirty years of age.

With regard to the Schistostomidæ for a long time only one species was known to exist in man, viz., the *Schistostomum Hæmatobium*, previously known as *Bilharzia* after the name of the German physician who had discovered it in Egypt in 1851 and who had proved it to be the cause of *endemic hæmaturia*. In 1904 Katsurado discovered a new species in Japan and called it Schist. Jap. Shortly after Catto found the same parasite in sections of the mesocolon of a Chinaman from the province of Fukien, who had died of cholera at Singapore. So far it has only been found in Chinese and Japanese, but very probably it is of wide distribution. It gives rise to an endemic disease characterised by enlargement of the liver and spleen, cachexia, and ascites. It does not affect the bladder; its ova being excreted by the intestine. Professor Sambon then went on to describe a third species which he established last summer, 1906. He had named it Schist. *Mansoni* in honour of Sir Patrick Manson, who had suggested the possibility of its specificity as early as 1903, when he discovered numerous Schist. eggs bearing a *lateral* spine in the stools of a patient who had long resided in Antigua and other West Indian Islands. Repeated examinations of the urine in this case had been negative, and the patient stated that he never at any time suffered from hæmaturia. Dr. Sambon said that he was unable to give either description or measurements of the parent worms, as the material at his disposal was very scanty and badly preserved. His determination was based chiefly, though not solely, on the characteristics of the ovum, which differed greatly from that of *S. Haem.* not only in the position of the spine, but also in the shape and size both of the spine and of the body of the egg. All the *Schistostomidæ* so far known, both in man and cattle, were very much alike in general appearance; the only striking and characteristic difference was that of their ova, which differed markedly in each species. In *Schist. Hæmatobium* the eggs were more or less lanceolate and provided with a short terminal spine; in *Schistost. Bovis* they were spindle-shaped and provided with a short terminal heart-shaped spine; in *Schistost. Japonicum* they were ovoid and had no spine; in *Schistost. Mansoni* they were oval and provided with a stout lateral spine. To zoologists the characteristics of the ova should suffice for the determination of a new species. Other species in higher groups of the animal kingdom as, for example, an

American ostrich (*Rhea*), had been established solely on the characters of their eggs. But there were other important facts in support of the new species, which would, no doubt, prove more convincing both to physicians and naturalists, namely, the peculiar geographical distribution, the different anatomical habitat, and the specific pathogenic action of *S. Mansoni*. In Egypt both *S. Hæmatobium* and *S. Mansoni* appeared side by side, but the former was much more prevalent, and was certainly more in evidence on account of the hæmaturia it produced. That was probably the reason why the two forms had been confounded and the scarce lateral-spined ova looked upon as abnormal or distorted. It is necessary to go over a wider field to realise that the differently shaped eggs represented different species. Thus in Cape Colony *S. Hæmatobium* seems to be the only one present. Harley, Brock and others working in this district have stated in their articles on the subject that they had never encountered eggs with the lateral spine. In other places, as in the West Indies, *S. Mansoni* was probably the only species, endemic hæmaturia was unknown, and the parasite had escaped observation until quite recently when a systematic examination of stools for detection of anchylostomum ova had made them suddenly aware of its extreme prevalence.

Further researches might reveal the existence in man of still other species which had so far escaped observation. Indeed Christophers and Stephens had found in the urine of a Madras native suffering from hæmaturia schistostomum eggs differing from those of *S. Hæmatobium* by their greater length and peculiar spindle shape.

With regard to *Opisthorcis sinensis*, the Asiatic liver fluke, Looss has shown that it should be recovered from the genus *Opisthorcis* and placed in a new genus, for which he proposed the name of *Clonorchis*. At the same time he pointed out that under the title *sinensis* two separate species were confounded, viz., *Clonorchis sin.*, the original *Distomum sin.* of McConnell and Cobbold, and *Clonorchis endemicus* the *Distoma hepatis endemicum sive perniciosum* of Baelz. These two species could not be distinguished by any structural characters, save slight differences in the size of the body and the ratio of the suckers, but as Baelz had pointed out in 1883 the larger form *C. sinensis*, usually present in small numbers, was comparatively harmless, whilst the smaller one, *C. endemicus*, always present in large numbers, was decidedly harmful. Both species occurred in China and Japan, but their relative prevalence seemed to vary greatly in different districts.

A new trematode of man has been described by Conyngham in 1904 as *Amphistomum watsoni*. In the following year Shipley de-

scribed it more minutely and assigned it to the genus *Cladorcis*. It had been found by Watson in the duodenum and upper part of the jejunum of a negro patient in German West Africa.

Within recent years several new *Cestodes* have been described. Thus in 1900 von Linstow described a *Tenia africana* from natives of Langenburg in German East Africa, in 1901 *Davainea asiatica* was passed by a man in Aschabad, Asiatic Russia, and in 1902 a *Tenia hominis* was found also in a man from the same place. In 1907 Dr. Sambon himself described a *Sparganum*, which had been forwarded to him for determination. It had been removed from an abscess in the thigh of a Masai in German East Africa by a medical missionary, Dr. Baxter. Dr. Sambon called it *Sparganum baxteri*, although it was impossible to distinguish it from the one found by Manson in 1882 in Amoy.

In the second part of his paper Dr. Sambon particularly drew attention to the migrations of certain helminths in their larval or immature stages before they reached their anatomical habitats in which they were usually found, because he believed a correct and full knowledge of such migrations might explain much that was now still obscure in the pathogeny of certain species. Until quite recently the route followed by the majority of intestinal parasites was supposed to be a direct one. The eggs of the parasite being swallowed by the host reached the intestine with water or food, and hatched in the part most convenient for their development. Likewise maggots appearing beneath the skin were supposed to have been laid there by the parent fly itself. He then gave a few examples to show that the true mode of entrance might be very different.

In the first place he mentioned the "ox warble fly," *Hypoderma bovis*. The life history of this fly has been entirely misunderstood until recent years. At one time it was believed that the fly punctured the skin and laid its eggs beneath by means of its ovipositor. On careful examination it was found that the structure of the ovipositor excluded the possibility of puncture, and that the eggs were merely deposited on the hairs of the skin. Thereupon it was thought that the larvæ, after hatching, penetrated the skin through the hair follicles. Now, however, it is known that the fly lays its eggs on the legs of the cattle, especially just above the hoof. The animals by licking conveyed them into the mouth. The larvae then escape from their egg shells and by means of their strong spines penetrate the walls of the œsophagus. They then moult and become smooth, and for several months wander through the connective tissues of the host, or migrate into the spinal

canal, and ultimately reach the point of their final development beneath the skin along the back of the animal. The larvæ then moult again become more spiny and bore a hole through the skin, placing their anal spiracle near the orifice in order to get air. The larvæ then develop rapidly, living upon the pus and bloody serum produced by the irritation of the spiny skin. Finally they moult again and force themselves out through the orifice, which they enlarge and drop to the ground to pupate.

As an example of the history of an intestinal worm Dr. Sambon took *anchylostomum duodenale*. Until quite recently it was believed that the larva was swallowed with water, food, or possibly even sand, and so passed directly into the duodenum. Looss suggested a second mode of infection, and proved it on himself that the larvæ can penetrate through the skin, enter the blood stream and finally reach the small intestine. According to Looss the larvæ were carried by the blood current into the right side of the heart and from there into the lungs. There they left the vessels and passed into the air follicles, crept along the bronchi and trachea passed over the dorsal margin of the larynx and down the œsophagus to the stomach and finally reached the duodenum. Dr. Sambon thinks, however, that the larvæ could certainly reach the small intestine by a more direct route, and also a safer one. In various species of *œsophagostomum* and in other *sclerostomum* which inhabit the intestine when fully mature for the purpose of fertilisation and oviposition, the immature forms, before entering the lumen of the gut, appear in small cysts beneath the mucosa of the intestine. It may be that the *anchylostomum duodenale* larva follows some such more direct route. The whole matter is, however, open to conjecture.

With regard to *Ascaris lumbr.* the general belief was that it reached the small intestine directly through the stomach, and, indeed immature forms of this worm have been passed by man. Dr. Sambon, however, pointed out that the larva of *A. lumbr.*, like the larvæ of some other species of *Ascaris*, is provided with a perforating tooth which would subserve the purpose of entering in some other way through the tissues. Although it is generally believed that the development of this worm occurs entirely within the one host such competent observers as Leuckart, Brown, and von Linstow suggest that the larval stage might be spent in an intermediate host.

In the concluding part of his paper Dr. Sambon touched on the part that such metazoa might take in transmission of secondary infections. The subject, in his opinion, is pregnant with possibilities. Therefore it was necessary to encourage the study of helminthology in every possible way.

## GO KAN JIU MU. 割肝救母.

By J. H. McCARTNEY, M.D., Chungking.

The filial piety of the Chinese is often lauded by those who know little or nothing of the Chinese. But the longer I live among them and the better I know them the less inclined I am to believe that they are any more "filial" than the rest of us, and if they make any sacrifice for parents there is generally some superstitious idea connected with it. Generally it is the teaching of some book which leads to ignorance and superstition.

We have often met with women who have cut out pieces of their flesh in order that a stew could be made with which to restore to health a sick husband; or men who have cut off arms, fingers and toes in order to free themselves from some charge or get even with an enemy. These are all the teachings of superstition. But up to this year I had never met with a case where a person had attempted to excise her own liver that she might obtain a piece with which to make broth to restore a sick mother or mother-in-law. In both cases the idea originated from their reading some theatrical book, which book I have thus far been unable to obtain. This book claimed that liver obtained from a living person had special curative properties and that such an act was meritorious on the part of the person who had the nerve to do the operation on himself. I heard at least one wealthy gentleman (Chinese) commend the act and he even went so far as to say that he was going to give the woman some money.

The first case occurred in the practice of Dr. Assmy, of the German hospital. The doctor was called the next day after she had opened her abdomen. He found the abdomen sealed with burnt paper, which no doubt saved her life. Her attempt was successful, as she had made a cut high enough and over the left lobe of the liver, so that as soon as the abdomen was opened the liver bulged up into the wound and she was able to excise it without any of the abdominal contents protruding. As proof they showed the doctor the piece of liver, and there could be no doubt that it was actually accomplished. She made an uneventful recovery and was lauded to the skies by the Chinese for her filial act. The doctor said that the patient's mother also recovered after taking a few doses of quinine.

The second case occurred in my own practice about three months after the above. The patient was a young married woman, unusually strong and healthy, living in a city about sixty English miles from Chungking. Her mother-in-law was sick, and in order to show her love

she took a big vegetable knife and with one cut opened her abdomen, but not with the success of the first patient. The position of the cut was all right, that is, about one inch to the right of the medium line, but the penetration into the abdomen was too low to expose the liver. The consequence was that she struck intestine in place of liver, with the result that the intestine protruded. They became frightened, as the Chinese hold that the intestines are "mo po ta," and decided to bring her to Chungking for treatment. They called a Chinese doctor, who put one or two stitches in the wound with a coarse, cotton thread. They had presence of mind enough to tie a cotton cloth around the abdomen, which prevented any great amount of the intestines from coming out.

The accident occurred about nine o'clock and she did not reach the hospital until nine o'clock the next night. When she reached the hospital she was almost pulseless and presented anything but a promising condition. With the assistance of Dr. Mary Ketring, she was hastily prepared for operation by giving her gr. 1-60 strychnine and three ounces normal salt solution subcutaneously, together with hot water bottles. Examination showed a knuckle of transverse colon, mesocolon, and about one and a half feet of small intestine, protruding, all matted together with inflammatory material and covered with white cheesy flakes. The mesocolon had been perforated with the knife and bled freely when the cloth was removed.

As the colon presented the worst appearance and we did not think it advisable to resect both large and small bowel, we decided to clean the small bowel and resect the colon, which was done.

The operation took considerably over one hour and the patient was in better condition at its end than she was when taken into the hospital. The next morning there was still more improvement in the pulse, but as we could not give them any definite promise of her ultimate recovery they decided to take her back home, against our advice, giving as their reason for doing so that if she died they would not be able to take her dead body into the city and therefore would not be able to pay her the respect due her for her act of devotion.

She lived to reach home and was reported to have eaten food. She lived forty-eight hours after operation. How long she might have lived if she had not been taken back it is difficult to say. But no doubt she would have lived much longer and it is not at all improbable that she would have recovered. The merit she obtained cost her her life, but no doubt her city pays honor to her memory. It would be interesting to hear if any other physicians have met with similar cases in China and to know if it is of frequent occurrence.

**THE EVANGELISTIC SIDE OF MEDICAL MISSIONS.**

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By ROBERT C. BEEBE, M.D., Nanking.

Every medical missionary recognizes the fact that the purpose back of his coming to the field, the purpose of those who contribute to his society and make his presence and work here possible, is the great desire to extend Christ's kingdom, to turn people from darkness unto light, from the power of Satan unto God, that they may find forgiveness for their sins and an inheritance among all those who are sanctified through faith in the Lord Jesus Christ. Moreover he is compelled to confront the fact that the daily demands upon his time and strength in professional duties and detail management of a large work leave him little opportunity for direct and aggressive evangelistic effort.

No doubt there are various degrees of ability and zeal among the large body of medical missionaries in China, but I presume no one would be satisfied with a work that had no spiritual results or would be willing to spend his life in this country with only a moderate opportunity of advancing Christ's kingdom. The medical missionary needs no defence of his spirit, devotion, or zeal. To his Lord has he devoted his life. To his Lord does he give his service, and to his Lord, who went about doing good, does he look for example and inspiration. Surely no field is so attractive or promising as that made fruitful by the medical missionary. I sometimes think that we ourselves do not fully realize the power and opportunity of our work for good and that its possibilities are not thoroughly appreciated by the missionary body in general. Consider the fact that our dispensaries have larger daily audiences to preach to than have most street chapels and that each individual has come, expecting a kindly personal service, and it must be conceded that the opportunity for presenting the Gospel is unique. It is sometimes objected that the patients are too intent on getting relief from their physical ills to make them good listeners to any presentation of the Gospel, but is this really so? Many of them may not be able or inclined to listen to long or uninteresting discourses, but the fact remains that here are many who from pain or disease necessarily are brought to confront the fact of the uncertainty of life. They begin to realize the possibility of their slipping away beyond the enjoyment and benefits of life, money and friends. At such a time they come in hope to the foreign missionary who stretches out a helping hand. Surely a word of wisdom has the best of chances under such circumstances to find lodgement in the soul. We, of course, know that very

often it does not find lodgment, but so has it ever been since the great Physician first began to heal and to teach.

Then the wards of our hospitals have an advantage unexcelled for evangelistic work. Kindness, care and real help are daily combining to gain the confidence and gratitude of our patients. Here we have an opportunity to exemplify the teaching of Christ, to give force to his message, and to open hearts to the love that constrains us to give ourselves for them. The patients are under our influence for a long time, affording a better opportunity for evangelistic effort with line upon line, precept upon precept, and they have an opportunity to study and learn the essential claims of the Gospel. The medical missionary sees and appreciates these opportunities and deeply realizes his inability, if unaided, to conserve and make the most of his work for Christ. This makes the evangelistic question an important and interesting one to him.

For a general propaganda by public talks and addresses, the dispensary affords a daily audience. Here is an opportunity, say of a good half hour each day before patients are seen by the physician. Those who cannot read can understand a plain talk on religious themes and all can be at least invited to investigate the claims of Christianity. I have always made it a custom to include with the registration ticket some Christian literature. I am aware that many of our patients cannot read, but the printed matter is taken away and perhaps read by others. Not all seed sown for the kingdom falls on good ground, but we must sow broadcast, for we cannot always know which will bear fruit for the harvest. I consider it an important matter to make prominent, as is done by the preaching in the dispensary and by religious literature, that this philanthropic work is a feature of the Christian religion, to identify to the passing crowd of patients, every day, the service rendered to them with the spirit and work of Christ, whether they accept his claims or not.

A service of daily prayer for the in-patients gives an opportunity to present Christ, to say things to the patients that an ordinary conversation might not permit or give a place for. Those who will come to such a service, for I think it should be voluntary, express by this act a certain degree of readiness to hear the Gospel.

There should be a reading room in connection with the hospital where an evangelist can be found every day and where those who wish to read can find books, tracts and papers. These can be loaned or sold to patients, and here at some time of the day will be an opportunity for quiet personal conferences between the native evangelist and inquirers.

Most patients, who are able, are glad to attend services on Sunday, and the evenings during the week afford a fine opportunity for teaching

employees and those among the patients who are sufficiently interested and are able to attend such meetings.

Many of our patients come from more or less remote places and represent lines of communication and places connected with our location by travel or trade. To conserve the goodwill, the favor gained for the Gospel in these places, to water the seed sown in the hearts of patients while in the hospital is an opportunity and a responsibility equally great.

To make the most of the religious opportunities presented to us during the week days, the evenings, the Sundays, in the dispensary and wards, the reading room, the chapel service, the homes and villages of our patients—yes, to even undertake to utilize them, requires more than the medical missionary, with his professional duties, can find strength or ability to compass. The ever recurring question is, "What shall I do?" One engaged in any work should be at peace with his environment and the medical missionary ought to be free from harassing care and an overloaded weight of responsibility if he would do any work efficiently. The medical work he and his trained assistants *must* do. The other members of the mission—lay and clerical—cannot take up that work. It is constantly pressing and cannot be evaded. But the evangelistic work they can assist in or direct. My conviction has grown with experience that more emphasis should be put upon the opportunities and urgency of the hospital work in its claims upon the evangelistic foreign missionary. A clerical missionary should be connected with every medical work to make the most of its evangelistic opportunities. There is too great an outlay in money and effort, too magnificent an opportunity gained to pass it by and open new work.

As medical missionaries recognizing the need and desiring the highest good for this people, we should at every opportunity present the need, argue the claims, and work for the fullest evangelistic service among our patients. Every medical missionary can bring to his dispensary and hospital a work large enough for himself and another foreign missionary at least.

I would repeat then that there should be a clerical missionary connected with every hospital, and without one the evangelistic opportunities cannot be adequately conserved. They cannot be conserved as fully as so large an effort and expenditure by a missionary society should demand.

But all I have said in regard to the need of a clerical missionary's help in medical mission work does not imply that the doctor has no other claims upon him than the professional side of his medical work.

*The whole spirit and atmosphere of the hospital will largely depend upon him.* This makes up the *life* of the institution. It matters not how good sermons or talks are given to the patients, how wise advice or urgent invitations, if the daily atmosphere is not permeated with the spirit of Christ, if the daily life does not reveal him in some measure, the rest will be largely wasted. If there are acts speaking louder than words, the words, be they ever so good, will not be heard.

Christ threw a very clear light on the pathway He wishes us to tread when He said : " Inasmuch as ye have done it unto one of the least of these my brethren ye have done it unto me." That makes it possible for us in our professional work to preach sermons, offer worship, and render service most acceptable to God.

If we see and feel in all our routine duties, in every service we have to render to the sick and suffering, a direct and loving service to Christ, it will not only ennoble and exalt our own souls but give to our hospitals and dispensaries such a spirit of loving persuasiveness that the Gospel will be preached effectively, the religious services will be blessed with results, and our own words of testimony and entreaty, when we are able to give them, will find hearts ready to consider them.

I count this a vital matter in relation to the evangelistic phase of medical missions. We *must* have the mind and the spirit that was in Christ Jesus. This must extend as far as possible to all the helpers. The coolies should feel that they are part of a Christ-inspired institution. The standard for them should be his life and spirit. An attempt to approach it will count largely in the best results.

There is no rare and wonderful device for evangelistic results. Each place has its own problems. Each man has his own gifts and limitations. All of us should be able to say with Paul : " God called me by His grace to reveal His Son in me that I might preach Him among the heathen," and each of us should be able to reveal daily to our patients the Christ abiding in us and thereby most effectually preach him to those who come under our care.

O Master, let me walk with thee,  
In lowly paths of service free.  
Teach me thy secret, help me bear  
The strain of toil, the fret of care.

Teach me thy patience—still with thee  
In closer, dearer company,  
In work that keeps faith fresh and strong,  
In trust that triumphs over wrong.

In hope that sends a shining ray  
Far down the future's broad'ning way,  
In peace that only thou canst give,  
With thee, O Master, let me live.

## Reports of Customs Surgeons.

### MENGTZ MEDICAL REPORT.

LES INDIGÈNES ET LA MÉDECINE EUROPÉENNE, AU YUNNAN.

PAR LE DR. G. BARBÉZIEUX, MÉDECIN DE L'HÔPITAL DE MONGTZÉ.

Les Chinois, si réfractaires encore, au moins dans les provinces éloignées de la mer, comme le Yunnan, aux idées et aux choses de l'Occident, commencent, cependant, grâce à un contact plus intime avec les Européens, à recourir à notre expérience et se montrent de plus en plus empressés à s'assimiler nos méthodes et nos procédés scientifiques.

Le Yunnan, à peine ouvert aux Européens, réputé, non sans raison, l'une des plus ignorantes provinces de l'Empire, s'ouvre lui-même, peu à peu, à la civilisation et l'on est frappé des progrès accomplis, au cours de ces dernières années, depuis, surtout, la venue des agents de la Société de construction du chemin de fer, qui reliera bientôt Hanoi à Yunnan—Sen, par Laokay et Mongtze.

Au point de vue médical,—le seul qui nous intéresse dans cette note,—nous voyons, de plus en plus, la clientèle chinoise envahir nos hôpitaux et nos cliniques, délaisser le médecin indigène, reconnu ignorant, et solliciter les conseils et les soins du médecin étranger.

A Yunnan—Sen, où notre distingué confrère Delay a laissé le meilleur Souvenir, l'activité du *trou petit* hôpital consulaire français est considérable et nous avons pu voir, au cours d'un récent voyage, à la consultation du Dr. Ayrand, de nombreux malades se remettre avec confiance entre les mains du médecin français, se prêter à de grandes opérations chirurgicales, comme la cure radicale de la hernie, du gôitre, des resections, des amputations, etc. Les Chinois ne font aucune difficulté pour reconnaître notre supériorité sur leurs médecins, sorcières, empiriques et rebouteux.

A la vérité, cette reconnaissance ne va pas sans quelque jalousie, sans quelque envie et, stimulés par l'amour-propre, les Chinois du Yunnan se mettent à construire des hôpitaux, pour l'établissement desquels les notables des villes sont fortement mis à contribution. Il y a un hôpital chinois à Yunnan—Sen et l'on s'occupe d'en créer un autre à Mongtze.

Même, pour ce dernier, le médecin du Consulate de France a été discrètement consulté et, il y a quelques jours à peine, le sous-préfet

de la ville lui demandait si, le cas échéant, il consentirait à aider ses confrères chinois de ses conseils et de ses lumières. Le Taotaï et le Préfet viennent, de temps à autre, visiter l'hôpital français de Mongtzé, s'intéressent à ce qu'on y fait et témoignent quelque satisfaction des soins donnés à leurs malades.

Il est vrai que l'organisation de l'assistance publique, l'établissement d'hôpitaux, d'asiles, ne constituent pas des idées nouvelles, en Chine. Nous sommes, ici, dans le pays où toutes les traditions, toutes les idées sont représentées; mais, cette représentation est nominale et assistance publique, hôpitaux, établissements de charité sont loin d'être des réalités.

Quoi qu'il soit, notre science médicale intéresse les Chinois, surtout notre thérapeutique. Ils voient, tous les jours, les effets incontestables de quelques uns de nos médicaments et leurs médecins et leurs pharmaciens remplaceraient volontiers les remèdes chinois, si compliqués, si difficiles à prendre, par nos "drogues" européennes, s'ils connaissaient exactement l'usage de ces dernières, s'ils pouvaient les prescrire, dans des cas bien déterminées. En effet, la médecine chinoise, tout empirique, ne connaît guère que la symptomatologie des maladies et c'est contre le seul "symptôme" que se porte l'effort de l'empirique.

C'est donc une éducation à faire, mais intéressante, utile et pour laquelle nos Yunnanais paraissent déjà mûrs.

Depuis, tantôt, quatre années, à Mongtzé, plus de douze mille Chinois, tant à la Consultation journalière, à l'hôpital, en ville, que dans la famille même, ont reçu les soins du médecin français,—ce qui nous valut, au début, quelque mauvaise humeur d'un confrère Chinois, dont toute la pharmacopée tenait dans un petit flacon mystérieux, portant cette simple et très modeste étiquette: " *Remède d'Immortalité!* . . . Depuis, les choses se sont arrangées, bien que notre confrère, plus routinier que d'autres, plus attaché à la tradition, ne soit pas encore pleinement convaincu de l'efficacité des remèdes européens, qui n'exigent ni mélanges savants, ni combinaisons compliquées, ni incantations.

#### HOSPITALISATION DES INDIGÈNES.

En principe, le Chinois du Yunnan est réfractaire à l'hospitalisation. Il vient volontiers réclamer les soins du médecin étranger, chercher des remèdes, mais il répugne à l'idée d'entrer à l'hôpital, où il est astreint à un régime sévère, à une discipline effective, où, enfin, il n'a pas son opium. Il ne vient donc chez nous que contraint et forcé, quand il a essayé tous les traitements, épuisé toutes ses ressources. En réalité, depuis ces dernières années, les choses ont, déjà, bien changé et cette peur de l'hôpital, s'est singulièrement atténuée,

depuis, surtout, que les coolies, employés par la société de construction du Chemin de fer, sont évacués régulièrement sur les hôpitaux et les ambulances de la ligne.

C'est ainsi que, du mois de Janvier 1903 au mois de Septembre 1904 une centaine de Chinois ont été hospitalisés à l'hôpital de Mongtzé, fournissant, ensemble, un peu plus d'un millier de journées de présence. Le reste de la population indigente de l'hôpital est constitué par des annamites, venus du Tonkin en qualité de "boys" et restés sans place; par des Européens, la plupart des Italiens, ou des Grecs, employés momentanément par la Société, les Entrepreneurs, ou les tâcherons du chemin de fer et que la maladie a réduits au chômage forcé et à la misère.

Chez les indigènes hospitalisés, ce sont les plaies, les affections chirurgicales qui forment le principal de la statistique hospitalière. Les troubles du mois de Mai 1903 avaient peuplé l'hôpital de Mongtzé de soldats blessés et confiés à nos soins par les autorités mandarinales elles-mêmes.

La fièvre typhoïde, qui existe à Mongtzé à l'état endémique, nous a envoyé son contingent de malades; de même, le paludisme, qui, selon que je l'indiquais dans de précédents rapports, sévit dans notre région, en dépit de l'opinion professée par la plupart des voyageurs, qui jusqu'à présent, n'ont fait que traverser le Yunnan au pas de course!

Les affections gastro-intestinales, la dysentérie, la misère physiologique, si profonde à Mongtzé, la lèpre, entrent également pour une bonne part, dans le cadre des maladies traitées à l'hôpital, consulaire français.

C'est au commencement de la saison des pluies (mois de Mai) et aux approches de l'hiver (mois de Novembre) que les maladies, se montrent le plus fréquentes et le plus meurtrières.

Nous avons eu en outre, cette année, une légère épidémie de variole, qui a sévi principalement dans les faubourgs de Mengtze. Cette épidémie n'a duré que quelques semaines et n'a fait aucune victime parmi la colonie européenne. Les mesures prophylactiques, prises immédiatement, les vaccinations et revaccinations ont rapidement enrayé la marche du fléau.

Nous constatons toujours l'absence de la peste à Mongtzé. Cette ville, où de nombreuses épidémies de peste ont éclaté autrefois, passait pour être le foyer chinois de cette redoutable maladie. Depuis quatre années, je n'ai, pour ma part, constaté que deux cas de peste à Mongtzé; encore, l'un de ces cas était-il importé du Koei-Tcheou. La peste paraît donc avoir disparu de la région. Cependant, l'agglomér-

ation chinoise a augmenté et les conditions sociologiques ne se sont pas modifiées sensiblement. Les Yunnanais sont aussi pauvres, aussi ignorants, aussi sales et la ville de Mongtzé est le même cloaque qu'autrefois. En revanche, il semble, depuis quelques années, que les conditions climatologiques se soient légèrement transformées : c'est, du moins, l'opinion de beaucoup de personnes qui habitent la région depuis longtemps. Quoi qu'il en soit, la disparition de la peste—définitive, ou momentanée, est un fait certain et qu'il était nécessaire d'indiquer.

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### OPENING OF THE YALE MISSION HOSPITAL, CHANGSHA, HUNAN.

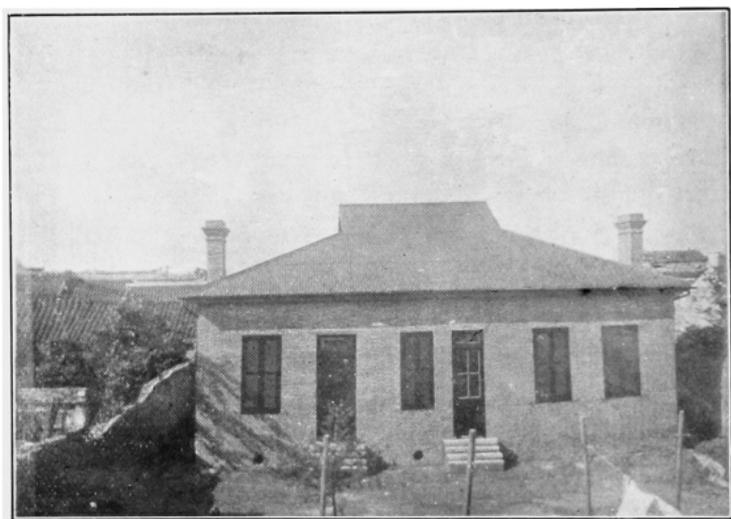
DEAR DOCTOR :—You may be interested to know of the formal opening of the Yale Mission Hospital in this place on Tuesday, March 24th. Our place is but a rented Chinese house, remodelled, and we cannot claim to be in the same class as those of you who have modern sanitary hospitals, whose plans and diagrams every one is keen to get hold of. But in our present quarters there is accommodation for a few patients, and there is such a tremendous demand for the foreign methods of treatment that the place ought to be a centre of good. We have been working along seeing patients quietly for several months, but seized upon the visit of Dr. Arthur H. Smith to our capital as affording the opportunity we wanted in order to invite official guests to see the place. The Governor was represented by Taotai Chu Yen-hsi, the Commissioner of Education by a Wei-yuan, and the district magistrates of Changsha and Shan-hwa were both present. Our provincial judge planned, till the last moment, to be present, but on account of the pressure of work in connection with his promotion to the position of provincial treasurer, he sent his card with regrets. Each of the officials present made a short address ; the Taotai's conveying the good wishes of the Governor as well as his own congratulations. After the officials had spoken, Dr. Smith had fifteen minutes to speak a straight message to the guests, and he spoke forcefully not only of the objects of this particular hospital, but also of the theme which is so constantly on his mind—the attitude of the officials in general toward the work that is being done by foreigners for the people of this country. (I cannot keep from digressing long enough to mention another address given here by Dr. Smith ; this one to the students of Changsha, who were invited to assemble in the large hall of the Yale school and which was a stirring message on the Opportunity of the Student in

China to-day. The audience was held spell-bound, for we have no one in this province who has been on the field anything like the length of time that Dr. Smith has, and no one who can so hold the Chinese by the constant use of proverbs and sayings that mean so much to them.) The exercises in connection with the hospital opening were held in the hall of the Yale school, and after they were over, the guests went across the street to the hospital, and looked it over rather thoroughly. Nothing interested them so much as the wickless blue flame oil-stove, which is so necessary a part of our outfit. The district magistrate of our district took great pains to charge me to run no risks in operating, because, he said, the people do not yet understand you well, and might get you into trouble if anything went wrong. I suppose he would think it very bold to be operating with ether, as we do not infrequently.

The hospital has accommodations for three patients each in two of the wards, and for two each in four other smaller wards, or for fourteen in all. At a stretch four more might be accommodated. The four small wards have just been made available through the generosity of Mrs. William R. Thompson, of New Haven, Connect., who has borne the entire expense of remodelling and furnishing them. In addition to the above and quarters for a Chinese trained doctor (trained in a mission hospital in North China), whom we expect to have join us in the fall, we have a good doctor's laboratory, a clean operating room, and good accommodation for the dispensary work.

Mrs. Brownell Gage (Woman's Medical College of Phila.) has made it possible to see a considerable number of women patients, and the problem of dispensing as well as of general supervision of the household side of the hospital has been solved only with the efficient help of Mrs. Lawrence Thurston, also of our mission. We expect two more men from home within the next three years.

I have been meaning to write and tell Dr. Venable, of Kashing, that we not only see hare-lip cases on the street, but that they are beginning to come in for remodelling. I have one in the ward now, who is to be operated on in a couple of days. I am struck by the number of students who come for treatment. They form a very large proportion of all our cases and represent all the outlying districts around. Like Dr. Hart, of Wuhu, a goodly number of cases of fistula in ano come for operation, and it is astonishing to see how easily a case of average difficulty can be done with local anesthesia. My experience in this regard entirely coincides with that of Drs. Carr and Guinness at Kaifeng.



ST. ANDREW'S DISPENSARY, WUSIEH.

I must also tell you of my great satisfaction in two surgical methods that I saw during 1906-7 in *Annals of Surgery*. One was the administration of ether by the drop method on gauze (Ladd and Osgood. *Annals of Surgery*, 1907, xlvii., p. 460). There is no apparatus beyond a pad of gauze twelve layers thick, on which ether is dropped rapidly. There is no stage of excitement if properly given, and almost never any post-operative vomiting. In addition, chemical studies have shown what is still more desirable, i. e., that acetonuria after operation is reduced from 88½ to 26 per cent. This method removes at least one of the objections to the use of ether urged on page 39, January issue, CHINA MEDICAL JOURNAL for 1907. I am also inclined to think that I am not alone in squirming as I read the statement on page 340, in the November issue, that "chloroform still holds the premier place as an anesthetic for abdominal operations". At present writing I cannot remember seeing chloroform used in abdominal cases during four years of hospital experience at home.

The second innovation was an operation for hemorrhoids devised by Pilcher, of Brooklyn (*Annals of Surgery*, 1906, xlv., p. 275).

I must close this long epistle with every good wish.

Yours very sincerely,

EDWARD H. HUME.

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### FORMAL OPENING OF ST. ANDREW'S DISPENSARY, WUSIEH, KIANGSU.

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We had the very great pleasure of being personally present at the opening of St. Andrew's Dispensary, A. P. E. M., Wusieh, Dr. Claude M. Lee in charge, on the 14th, of March. The day was perfect, and a representative gathering of native Christians, Wusieh gentry, and guests from Shanghai and Soochow was present. The meeting in the waiting room was presided over by the Rev. G. F. Mosher, in charge of the evangelistic work in the station, who introduced the speakers, among whom were the Rt. Rev. the Bishop of Shanghai, Taotai Sih, the two City Magistrates, Dr. Yang, and several others. Dr. Lee himself made the opening address of welcome. Also, we suffered the agony of making our first speech in Mandarin.

A feast of some fifty covers was then served, and after several photographs of the guests had been taken, the dispensary was thrown open to the public for inspection.

The building is admirably suited to its purpose, the beginning of medical work in a large native city, and under the charge of a single physician. A grey brick structure, well built and well planned, extremely neat, and in the very best of taste. A large waiting room divided by a railing for men and women, each division opening into treatment rooms separated by a central drug room, and a simple but thoroughly satisfactory little operation room back of these and facing north.

The dispensary is on the main street of the city and also on the main canal in which even large house boats may approach it with ease. The first clinic was held on Monday, the 16th, and over fifty cases were treated ; this large number has more than held good since that time.

We were particularly pleased to note a corner reserved for clinical laboratory work, and a good microscope, bacteriological incubator, centrifuge, etc., etc., which gave promise that from the very start careful and thorough work would be done.

Dr. Lee has shown the signs of excellent judgment in his plans. He has neither undertaken more than one man should, nor failed to see something of what the future is likely to bring him. A letter from the Doctor, received this minute, while I write, says: "To-day we had eighty-two patients in the clinic, besides six one-dollar patients. Scabies, entropion, and trachoma are our best customers, though we see something of aural polyps too."

God-speed to scientific medicine in Wusieh !

EDITOR.

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# The China Medical Journal.

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VOL. XXII.

MAY, 1908.

No. 3.

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The yearly subscription to the China Medical Missionary Association is \$4 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.

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## Editorials.

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With this issue a year has passed since our last Conference—a year which the Editors look back upon with considerable satisfaction. It has been the best year since the foundation of the Association; there have been more signs of life and healthy living than we have ever seen before. In our report to the Conference we made the promise that if the Association would make an effort to give us the material for a better JOURNAL, we would do our part from the editorial standpoint. As to whether we have succeeded in improving the JOURNAL during the past year, we are not in a position to say. But it is certainly true that we have never received so many pleasant expressions of satisfaction therewith as during the past twelve months, and our correspondence has outgrown our own epistolary capabilities, though it has by no means exceeded our satisfaction in the reading. The circulation of the JOURNAL has increased materially, but with the better and more frequent illustrations the expenses have also increased. We therefore beg leave to second the efforts of the Treasurer in urging the prompt payment of all arrears in Association dues; we would also particularly request you to aid us with regard to our advertisements by mentioning the fact of having noted the same in the JOURNAL whenever writing to advertisers.

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We desire to call attention to the fact that we have printed excellent reproductions of views of hospitals in China during the past four years, and the blocks of these prints are in the possession of the JOURNAL. It was formerly our custom to lend these blocks to the various hospitals for reports and so forth. With a view to improving our financial

position we have recently adopted the plan of offering for sale at half the cost price any such blocks as the hospital authorities may desire to own. In general, this would also apply to blocks of professional interest, though we would prefer not to guarantee to sell all of these. The terms are extremely liberal and have already been accepted by a number of contributors.

When desiring to purchase such blocks, please write directly to the Presbyterian Mission Press, Shanghai, and ask that the block be forwarded to yourselves, or to whatever printing office you desire to patronise. Of course only those who have contributed any special photo. are permitted to buy the block thereof.

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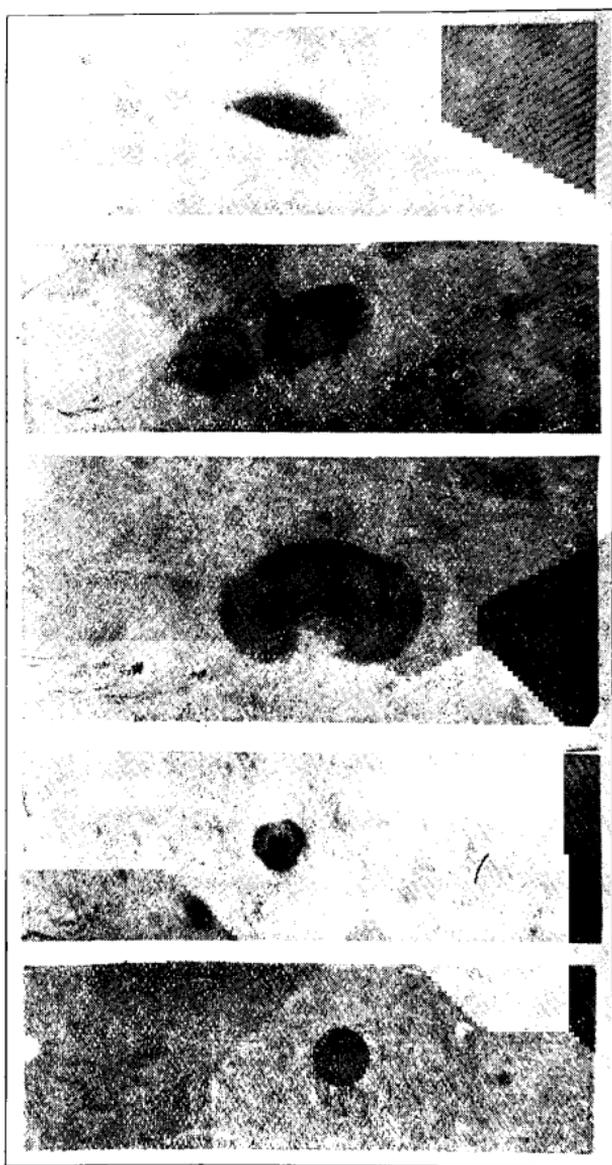
We desire to apologise for the omission of the writer's name from the excellent paper on the Kerr Refuge for the Insane, published in March. It might be considered a **A Correction.** serious omission, if we did not all know very clearly that it was from the pen of Dr. C. C. Selden, who is in charge of the institution. Dr. Selden apparently failed to notice the omission, but was telepathically incapacitated, perhaps, thereby to the extent of failing to get his second paper in for this issue.

\* \* \*

Text-books on fecal examinations keep constantly referring to the danger of confusing certain vegetable bodies with the ova of intestinal parasites. But as Dr. Young points out, in his most interesting letter which we print in this issue of the JOURNAL, they invariably fail to throw any light on the above-mentioned vegetable matter and its differentiation. In our lay capacity as the writer of "Kodaking for Small Game," we desire to acknowledge very gratefully the light that Dr. Young has thrown on the body described in that article as unknown to us, and to accept with assurance his opinion that it is a **Vegetable Matter in the Faeces.** Teleuto-gonidea (a). (See Vines' Botany, p. 304, for verification.) The body is one of the compound gonidea, broken loose from the mycelium. Three other bodies of undoubtedly vegetable nature are being found, and that they may not cause further confusion we take this opportunity of calling attention to them.

The first, which we\* have ourselves seen in four patients, and of which Dr. Cole, of Ningpo, has sent us specimens from one of his

\* Dr. Day and the writer.



A

B

B

C

D



a. (After Vines')



a. (After Vines.)



b. (After Vines.)



c. (E. Day.)



c. (E. Day.)



d. (E. Day.)

own patients, is (b) a germinating two-celled microspore, showing the expansion of the exine. (See Vines' Botany, p. 482.) We are not able to name the exact genus, but very possibly Dr. Young will do so for us. The second (c) which we have seen once and Dr. Booth, of Hankow, once, is about the size and has somewhat the appearance of a Taenia egg, but is usually trefoil in shape and slightly greenish in colour. But the fact that it varies somewhat in size and has a double cellulose shell, as well as the peculiarly clear and stiff appearance which is so characteristic of vegetable matter, would indicate its nature. The genus of this also will be referred to Dr. Young. The third

body (d) has the colour of the Teleuto-gonidea body, a light chocolate brown, is small and round, but varies in size, is found in certainly fifty per cent. of all stools, has a thin, double shell marked with irregular tracery and contains usually an oil drop.

We call attention to these bodies without waiting for further definition in order that others may have the advantage of the Editors' experience and of Dr. Cole's therewith.

Dr. Booth calls attention to the known fact that certain of the eggs of *Opisthorchis Sinensis* have a spine at the broader end, while others are quite plain. In this we thoroughly agree with him. We have also found certain of them which, while having the spine, certainly do not show any operculum, though sometimes slanting lines indicate its future site. These latter were present in a specimen in which the eggs were remarkably abundant. They present a rather granular appearance, similar to the unfertilized ascaris egg, are slender and pointed and possibly represent the unfertilized form of *Opisthorchis sinensis* egg. Dr. Tyau and the writer have observed them in utero, as well as in stool.

## QUININE IN CHOLERA.

During the epidemic of cholera which raged on the Yangtze some years ago the surgeon of the U. S. gunboat *Villalobos*, who was travelling on one of the infected steamers, had no other drug at his disposal, so he treated a case with large doses of quinine. At the time we paid little attention to this remedy for cholera, but since then the use of it has been brought before the attention of the profession by Professor Koch, who recommended its use. Ussher in the Philippines, acting on Koch's suggestion, has met with decided success in the treatment of the outbreak of cholera which took place there some time ago ; as many as ninety per cent. of the patients recovering. The plan of treatment was as follows : Sulphate of quinine in ten grains doses every hour until the ricewater stools had disappeared and bile was passed in the motions. For suppression of urine, friction of the limbs, hot fomentations, dry cupping over the loins, and sweet spirits of nitre were found useful. When evidence of failing circulation supervened, subcutaneous injection of saline solution proved beneficial.

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METHOD OF MOUNTING SPECIMENS OF OVA,  
EMBRYOS, AND SMALL WORMS.

Dr. C. G. Low, who was for some years the medical superintendent at the London School of Tropical Medicine, gives the following instructions relative to the above. For filarial embryos a large drop of blood is placed on the slide, spread out so as to form a film, and then allowed to dry. After this it is placed in water till all the red color of the blood disappears, and then a few drops of any stain, such as fuchsin, methylene blue, or hæmatoxylin are applied for a few minutes. Wash again in water, dry and mount in Canada balsam.

Small worms such as *Trichocephalus dispar*, *Anchylostomum duodenale*, are best placed for a few days in a two per cent. formalin solution, then in glycerine, and from this into glycerine jelly, in which they are mounted. Bilharzia ova for permanent preparations are obtained by mounting the little shreds of mucus passed in the urine in glycerine or glycerine jelly.

Eggs of intestinal parasites found in fæces are best mounted in formalin, five to ten per cent. In all those specimens in which glycerine, glycerine jelly, or formalin is used it is important to remember that the cover slips must be ringed with Canada balsam or asphalt to prevent the subsequent evaporation of the medium which always takes place.

With a little practice very beautiful specimens may be permanently obtained by any of the above methods.

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### CHINESE MEMBERSHIP IN THE ASSOCIATION.

An important question has come to the attention of the Executive Committee of the Association which calls for careful consideration and prompt solution. The names of two graduates of the medical department of a certain legally American Chartered University in China, holding the degree of M.D., have been presented to one of the local branches and their election held over because of the fact that though personally desirable, well qualified, and legally so according to American law, though engaged in active mission work and thoroughly in sympathy with the same, though earnest Christians and in every way personally eligible to active membership, it was realized that their admission might be made a stepping stone for the admission of graduates of some of the hospitals which cannot and do not put out thoroughly trained men nor have the legal status for doing so. In other words, it was feared by some in high places that our standards were in danger of suffering, not by these men but by others whose admission would be insisted on and whose training would not be such as to make them desirable as members of our scientific body.

The question is not of nationality, we have already a number of Chinese in the Association, but of place. Graduates of British, American, etc., universities *at home* are eligible. Are graduates of British or American universities *here* also eligible?

Active membership in this Association has three requirements:—

- 1st. Graduation from some recognized medical college.
- 2nd. Engagement in medical missionary work in China, etc.
- 3rd. General or local election.

If recognition by the American government does not cover the first, we beg leave to courteously inform our readers that nothing on sky, land, water, or the depths does so. We infer from our own sentiments that our cousins feel the same way with regard to their own national recognition. We decline to argue "recognition" further. Certainly national recognition is as far as we can go at present.

Engagement in medical missionary work is self-explanatory. It should be genuine and should be not merely a temporary engagement but give promise of endurance. In other words, it should be missionary, not merely financial.

General or local election is a matter well understood and merely a safeguard to the honor and welfare of the Association. We do feel that in the case of our Chinese graduates, if they are qualified (otherwise certainly not), we should from every standpoint make a deadly mistake to exclude them from the mutual advantages of membership. We should hopelessly damn our own educational work, we should be exclusive to the point of brutish snobbery, we should cripple our chance to hold our influence and keep in touch with our own intellectual offspring, we should divert a valuable scientific and financial asset and generally make a mess of it.

We have the following suggestions to make:—

1st. That nationally recognized institutions in China should register the fact with the Executive and the list be held for reference. That only graduates from such be eligible.

2nd. That only regular graduates holding medical degrees from such be eligible.

That is, that the graduates must have received their course in the institution conferring the degree, not in some neighboring hospital.

3rd. That the missionary qualification be strictly insisted upon—for obvious reasons.

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## SERUM DIAGNOSIS AND TREATMENT.

Serum diagnosis and serum treatment have come to stay and it is well for us to keep ourselves up to date on these subjects. We draw attention to Professor Calm ette's work in connection with

the conjunctival reaction as a diagnostic point in connection with tuberculosis. Following up the idea suggested by the tuberculin skin reaction to which Von Pirquet had drawn attention, and also the researches of Wolff-Eisner on the reaction of healthy mucous membranes to certain toxins, Calmette was led to seek for a diagnostic reaction by the application of tuberculin to the conjunctiva. Calmette advised the use of a *one per cent.* solution of dried tuberculin in sterile distilled water. Comby, writing in the November number of *Le Bulletin Medical*, advises the use of *half per cent.* solution as he found that the *one per cent.* solution as advised by Calmette produced considerable chemosis and purulent secretion. Three degrees of reaction may be observed. 1. A slight reaction may be overlooked if the internal angle of the eye is not carefully examined and compared with the other side. This form rarely persists more than two or three days. 2. A moderate reaction in which the internal portion of the eye is injected and the caruncle and its adjoining fold are markedly swollen and reddened. The palpebral as well as the ocular conjunctiva is affected, and fanshaped bundles of vessels may be seen starting from the inner angle of the eye towards the corneal border. There is some lachrymation, and fibrino-purulent flocculi are present. This degree of reaction is readily visible without comparison with the other eye, and persists five to seven days. 3. An intense reaction which affects the whole conjunctiva and may produce swelling of the lids, purulent secretion and considerable discomfort. In a few cases vesicles have been seen at the border of the cornea resembling those seen in phlyctenular conjunctivitis, and in others slight conjunctival hæmorrhage. This degree of reaction is visible at some distance and persists for a period of seven, ten, or even fifteen days. This intense reaction is rare and is seldom seen when the weaker solution of tuberculin is used, but it is entirely local and neither produces elevation of temperature nor modifies a pre-existing feverish state. After instillation of the solution the reaction may begin in six hours. It first appears about the caruncle and it may be necessary to abduct the eye before it can be seen. It is necessary too to compare it carefully with the other eye.

The oculo-reaction to tuberculin may be repeated indefinitely in the same patient without losing its value. A positive reaction may be obtained when tuberculosis is latent as well as in patients actually moribund. Cases of tubercular meningitis react at all stages. Surgical tuberculosis gives as decided a reaction as that obtained in phthisis.

The sole contraindication of the oculo-reaction is the presence of blepharitis or any inflammatory state of the conjunctiva or cornea. It is important to allow forty-eight hours to elapse before deciding that no reaction has taken place as it may be merely delayed.

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### CONJUNCTIVAL TYPHOID REACTION.

The recent researches on the diagnosis of tuberculosis by the reaction described above induced Professor Chantemesse to try whether a similar result could be obtained in typhoid fever. He precipitated a strong solution of typhoid toxin with absolute alcohol and obtained a powder of which  $1/50$  mgm. dissolved in a drop of water gave a definite reaction when instilled into the conjunctiva in typhoid fever. The test caused no inconvenience as the temperature and general condition were unaffected. When instilled into the eye of a healthy person or one suffering from another disease than typhoid a slight redness and lachrymation is produced in two or three hours, which passes away at the end of four or five hours. On the following day all change has disappeared and the injected eye is absolutely similar to the other. In patients suffering from or convalescing from typhoid fever the reaction is much more intense. It attains its maximum from six to twelve hours after instillation, and persists till the following day. It is characterised by redness, lachrymation, and sero-fibrinous exudation. It is possible to recognise twenty-four hours after which eye has been treated, even at some distance, and it is not unusual for the redness to persist for two or three days. It is yet uncertain how early in typhoid fever this reaction may be produced, but a positive result has been obtained in rabbits twenty-four hours after the subcutaneous injection of typhoid bacilli.

# MEDICAL MISSION STATISTICS. 1907.

Mission.	Location.	Name of Hospital or Dispensary.	Medical Machinery.	Foreign Nurses.	Chinese Attendants.		Medical Students or Pupils.	Beds.	PATIENTS.										SURGICAL OPERATIONS.				
					M. F.				M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
					M.	F.																	
American Baptist Missionary Union	Hanyang, Hupoh Kak-chieh, Swatow Kiating, Kwangtung Kichang, Kwangtung Suifu, Szechuan	Hanyang Huchow E. R. Scott Memorial Martha Thresher Memorial Kiating Suifu	Huntley, Brethauer Eubank Worley, Scott. Grant Bixby Tompkins	3 1 1 2 2	1 4 5 2 2	50 149 689 30 28	15 763 359 1,449 930	2,150 6,100 4,490 1,409 2,275	149 145 359 6 11	15 763 359 1,449 930	2,150 6,100 4,490 1,409 2,275	577 400 40 40 522	1,229 the work the work the work the work	4 200 40 40 522	9,275 6,344 3,675 7,371 3,870	234 58 24 7 38	18 33 4 3 3	1 1 2 1 1	3 1 4 2 9	97 188 41 108 9			
American Board of Commissioners for Foreign Missions	Foochow, Fukien Pagoda Anchorage, Fukien Pangchuang, Shantung Shaowu, Fukien Tungchow, Chihli	Women's and Children's Jangseung Williams Shaowu Tungchow	Woodhall, Stryker Whitney Tucker, F. F. Tucker, Emma B. Bliss Ingram	1 1 2 3 3	1 1 1 1 1	8 24 368 69 40	170 173 173 173 17	3,851 5,925 1,889 843 4,017	170 173 173 173 17	3,851 5,925 1,889 843 4,017	254 33 23 250 12	371 the work the work the work the work	40 60 216 88 802	7,565 15,426 15,426 15,426 15,426	67 216 198 66 120	198 5 11 35 40	5 11 5 35 40	56 35 35 35 35					
American Church Mission (Protestant Episcopal)	Anking, Anhwei Shanghai Shanghai Wuchang	St. James' Jessfield St. Luke's Lincoln St. Elizabeth's Boone, Jefferys, Tucker St. Peter's Myers, MacWillie	Woodward, Taylor Lincoln Boone, Jefferys, Tucker Myers, MacWillie	2 1 1 1	2 1 1 1	30 95 49 40	3 5 4 4	30 95 49 40	30 95 49 40	30 95 49 40	401 1,312 3,128 4,016	9,566 4,771 27,599 1,287	80 230 338 306	19,206 7,312 43,220 3,424	344 283 234 206	344 283 234 206	344 283 234 206	344 283 234 206	344 283 234 206				
Baptist Missionary Society (of England)	Taiyuenfu, Shansi Tsouping, Shantung	Taiyuenfu Tsouping	Broomhall Paterson, T. C. Paterson, Mrs.	2 1	2 1	4 30	4 30	1,291 4,623	2,760 4,430	2,760 4,430	58 1,571	58 1,571	116 58	116 58	116 58	116 58	116 58	116 58	116 58	116 58			
Basel Mission	Kiatingchow, Kwangtung	Basel Mission	Wittenberg	1	3	5	5	6,049	12,773	12,773	19,245	79	209	73	8	310	310	310	310	310			
Canadian Methodist	Kiating, Szechuan Rensheo, Szechuan	Service Cox	Service Cox	1	1	1	1	37	22	1,338	2,961	145	335	4,876	66	22	1	3	10	10			
China Inland Mission	Chefoo Chinking, Kiangsu Jacobowfu Kichow, Chekiang K'ai-fengfu	Douthwaite Memorial C. I. M. C. I. M. C. I. M. Fuhying	Hogg Cox Judd Anderson Carr	1 1 1 1 2	1 5 2 2 2	36 100 68 8 32	3 5 2 2 2	169 6,000 874 714 5,630	616 4,960 302 307 616	616 4,960 302 307 616	250 150 61 100 44	135 24 24 381	10,753 15,426 2,566 4,400 5,196	90 283 57 106	161 30 37 13	4 30 5 108	4 30 5 108	114 590 72 20 2					
Church of England Mission	Chemulpo, Korea Peking, Chihli	St. Luke's Church of England Shire	Weir Graham Aspland	2	3	3	3	115	38	1,053	2,168	1,602	110	103	11	121	121	121	121	121			
Church of England Zenana Miss. Society	Foochow, Fukien	Lungang	Shire	1	1	1	1	32	85	870	3,938	170	5,063	12	4	5	3	7	7				
Church Missionary Society	Foochow, N. Gate Hing Hwa Kienningfu, Fukien Kueilin, Kwangsi Ning Daik, Fukien Ningpo	C. M. S. Men's Stewart Mem. Women's C. M. S. C. M. S. C. M. S. C. M. S.	Wilkinson, Mackenzie S. Taylor, Sanger Pakenham, Churchill Clift Hanington Cole	2 2 1 1 1 2	2 3 8 5 1 2	80 172 61 202 350	3 5 3 1 1	303 990 112 800 179	182 671 112 313 379	2,002 1,544 4,952 3,749 816	830 136 50 43 31	542 13,490 36,393 9,119 2,298	52 350 283 127 18	350 300 1 5 24	3 3 3 3 3	230 300 1 4 330	230 300 1 4 330	230 300 1 4 330					
Church of Scotland Mission	Ichang, Hupoh	Rankine Memorial	Graham, Stooke, C. F. Stooks, J. J.	1	3	2	2	64	578	7,253	9,239	170	17,010	118	10	11	3	5	5				
Cumberland Presbyterian	Changteh, Hunan	Sunday School	Logan, Berst	1	2	3	3	25	174	3,394	4,037	141	8,251	75	189	93	5	5	5				
Danish Lutheran Mission	Antung, Manchuria	Danish Mission	Ellerbek	1	2	2	2	1,452	143	9,369	174	14,108	21	149	16	92	92	92	92				
English United Methodist Mission	Lao Ling, Shantung Yungpingfu Wenchow	U. M. M. U. M. M. Henry Blyth	Marshall Baxter Plummer	4 1	1 6	1 6	1 6	45 12 80	196 20 217	1,599 632 5,652	1,008 56 5,121	200 8 15	2,582 24 11,635	6,990 1,380 87	82 37 27	181 27 112	36 3	5 3	104 3				
Finnish Mission	Tsinghsih, Hunan	Finnish Mission	Helkinheimo	Work	opened	25th Oct. 1907	10	1	210	78	230	1	533	7	11	1	6	15	15				
Irish Presbyterian Mission	Chinchow, Manchuria Heinimtu, Manchuria Kwan-chengtu, Manchuria Newchwang, Manchuria	I. P. M. I. P. M. Women's Irish Mission	Keers Learmonth, B. L. Learmonth, A. M. Phillips	1 1 2	3 4 3	3 30 44	3 3 3	64 172 425	3 30 44	1,245 4,396 2,634	686 3,552 17,234	46 60 42	350 23,504 217	14 316 269	11 39 6	1 3 6	15 86 183	15 86 183	15 86 183				
London Missionary Society	Chungking, Szechuan Bankow, Hupoh Hengchow, Hunan	London Mission Men's Hospital London Mission Memorial, Netherlands. Hominling, Alice Mem. Maternity	Wolffendale Gillison, McCall Peake Gibson, Sibree Stuckey Cochrane, Peill Saville	1 6 1 1 1	2 14 1	50 63 47	2 14 1	612 446 115	16,163 12,122 3,483	12,122 3,483	141	29,484	157	25	168	9	28	1,407	1,407				
Commonwealth M. S. S.	Hsiaochang, Chihli Peking, Chihli Peking, Chihli Siao Kan, Tungchow, Chihli Tsao-shih Wuchang	London Mission London Mission Women's Siao Kan Hospital and Lepoc Home Robert's Memorial London Mission London Mission	Stuckey Cochrane, Peill Saville Fowler Peill Wills Somerville	1 2 10 4 4 4	1 5 3 12 4	50 362 94 30 293 188 217	1 5 3 12 4	115 362 94 30 293 188 217	3,483 4,652 7,522 12,629 4,209 995 3,869	3,483 4,652 7,522 12,629 4,209 995 3,869	250 150 381	5,623 5,623 6,422	312 312 79	272 272 14	14 14	3 3	197 197	197 197					
Medical Missionary Society	Canton, Kwangtung	Canton	Swan	1	1	2	2	340	1,247	700	10,000	5,000	4,000	2,500	200	200	23,947	1,046	1,046	1,046			
Methodist Episcopal Church	Chiench, Chihli Chentu, Szechuan Chinking, Kiangsu Chungking, Szechuan Chinking, Kiangsu Sixth Township, Hengchiang, Fukien Peking Sungfu, Fukien Tataufu, Shantung Tataufu, Shantung Wuhu General	Martyr's Memorial General For Women and Children General Men's Danforth Memorial Sister Memorial, Good Shepherd Methodist Eliza Nest Memorial Tataufu Women's and Children's Wuhu General	Keeler Cainight Hogg, Taft McCartney, Freeman Sawyer Carleton Hopkins, Lowry Hew Ensign Benn Hart, Houghton	8 12 6 1 3 1 1 1	1 5 3 1 4 1	500 1,118 243 722 207 20 80 177 223 24 4 80	1 5 3 1 4 1	500 1,118 243 722 207 20 80 177 223 24 4 80	500 5,679 2,100 2,054 7,224 3,783 13,175 790 1,921 1,834 4,581	5,679 2,100 2,054 7,224 3,783 13,175 790 1,921 1,834 4,581	290 385 25 881	6,179 16,927 3,946 17,778 13,417 4,133 24,577 3,953 3,193 2,655 9,230	121 200 310 53 53	234 300 82 15 53	5 5 15 3 3	25 176 143 139 143	25 176 143 139 143						
Methodist Episcopal Church, South	Soochow, Kiangsu Soochow, Kiangsu	Soochow Mary Black Memorial	Park Polk	3	3	2	2	35	339	12,011	7,002	4,511	285	266	19,254	90	194	35	7				
Norwegian Missionary Society	Changsha, Hunan Iyang, Hunan	Women's and Children's Nor. Miss. Society	Gotteberg Nilssen	1	1	2	2	50	169	76	654	1,336	352	15	39	2,376	8	8	7				
Presbyterian Church in Canada	Hweichingfu, Honan Weihsifu	Bloor St. Church Weihsifu	Menzies, Scott McClure	1	2	2	2	24	100	5,063	14,141	19,204	107	86	50	15	1	35	35				
Presbyterian Church of England	Changpo, Fukien Changpo, Kwangtung Chiangho, Formosa Chinchew, Fukien Chinchew, Fukien Hingchun, Fukien Swabue, Kwangtung Swatow, Kwangtung Swatow, Kwangtung Tainan, Formosa Takow, Formosa Wakingfu, Kwangtung	Changpo Bursch Memorial Chiangho General B. Paton Women's Engchun Swabue Swatow Mission Swatow E. P. Mission Takow E. P. Mission	Montgomery Whyte, Knight Landsborough General B. Paton P. Maxwell Sandeman Lynn Beath J. L. Maxwell Anderson Kiddell	1 1 5 1 1 1 1 2 1 1 2	6 11 5 3 5 7 5 10 5 2	55 92 30 637 23 50 60 210 160 20 70	6 11 5 3 5 7 5 10 5 2	363 762 148 83 173 456 243 257 1,781 235 548	48 282 189 1,269 1,455 1,990 1,288 1,269 5,941 690 1,352	4,904 14,433 9,870 1,269 1,455 2,990 1,288 1,269 5,941 690 1,352	78 60 46 169 45 25 24 192 51 133	78 60 46 169 45 25 24 192 51 133	6,749 10,905 3,946 9,965 66 132 658 15,095 3,271 200	24 22 20 281 8	6 5 488 63 139 143 430 819 118 75	5 5 12 12 6 12 19	54 54 54 63 139 143 224 90 66 9	54 54 54 63 139 143 224 90 66 9					
Presbyterian Church in U. S. A. (North)	Chinanfu, Shantung Loihow, Hainan Hwaiyuen, Anhwei Ichowfu, Shantung Fackingfu, Chihli Ichowfu, Shantung Peking, Chihli Pyengyang, Korea Gangien, Hunan Soochow, Kiangsu Tengchowfu, Shantung Weihsifu, Shantung	McIlwaine Holchow Hwaiyuen Women's Taylor Memorial Ichowfu Men's Dow Catharine A. Ladd The Nathaniel Tooker Tooker Memorial Seymour Kays	Neal McCandless McCandless Fleming Lewis Fouts Leonard Wells Vanderburg, Tooker Cattell Seymour Kays	2 1 3 1 2 3 1 1 2 3 1	1 1 2 2 3 1 1 1 2 1 1	38 70 63 114 270 20 70 456 1,201 3,031 2,269 39 284	1 1 2 2 3 1 1 1 2 1 1	38 70 63 114 270 20 70 456 1,201 3,031 2,269 39 284	3,033 1,600 3,704 1,343 1,071 3,925 2,628 80 11,925 8,096 3,430 1,523 2,269 4,653 1,935	3,704 1,343 1,071 3,925 2,628 80 11,925 8,096 3,430 1,523 2,269 4,653 1,935	184 65 73 48 54 80 154 263 187 20 48	184 65 73 48 54 80 154 263 187 20 48	10,683 10,683 5,902 6,742 15,550 22,590 8,320 12,018 2,855 6,041 7,002 125	215 215 62 175 254 161 3	86 86 167 153 254 161 3	5 5 1 3 12 12 19	52 52 1 12 77 80 66 7	52 52 1 12 77 80 66 7					
Presbyterian Church in U. S. A. (South)	Dongshang, Chekiang Kashang, Chekiang Soochow, Kiangsu Suchien, Kiangsu Tungkiangku, Kiangsu	Dongshang Presbyterian Kashang Presbyterian Elizabeth Blake Women's Dispensary Tungkiangku	Shields Venable Wilkinson, Stuart Mrs. Patterson	1 1 15 1	5 2 6 1	40 385 125 112	5 2 6 1	40 385 125 112	1,245 4,329 3,337 2,000	2,695 5,070 3,337 2,124	2,695 5,070 3,337 2,124	88 72	120 1,076	15,474 13,256 4,124	578 93 578	2 2	2 2	2 2	2 2				
Reformed (Dutch) Church in America	Amoy, Fukien	Hope and Wilhelmina	Otte	1	4	1	1	1,002	456	821	2,214	1,185	1,076	9,505	21	116	26	7	79				
Reformed Church in U. S. (German)	Chenchowfu, Hunan	Chenchowfu	Kelly	1	1	1	1	100	100	100	100	100	100	100	100	100	100	100	100				
Rhenish Missionary Society	Tungku, Kwangtung	Rhenish Mission	Kühne, Eich	1	1	1	1	100	454	1,275	1,710	5,724	3,104	45	13,458	978	248	2	308				
Seventh Day Baptist	Lienow, Kwangsu	Palmborg	Palmborg	1	3	3	3	1	2,931	3,304	75	4,310	97	1	335	335	335	335	335				
Southern Baptist Convention	Pingtu, Shantung Wuchow, Kwangsi Yangchow, Kiangsu	Pingtu Stout Memorial Yangchow	Oxner Hayes, Meadows Hayes, Mrs. Meadows, Mrs. Evans	1 1 1	1 1 1	40 205 92	1 1 1	40 205 92	40 205 92	40 205 92	40 205 92	274 285 92	188 1,463 4,078	6,563 9,406 4,078	132 51 81	134 30 7	35 13 8	2 8 4	2 8 4				
Swedish American Covenant Mission	Siangyangfu, Hupoh	S. A. M. S.	Sjoquist	2	3	1	1	50	172	57	4,216	18	4,310	78	57	7	7	7	7				
United Free Church of Scotland	Kaiyuen, Manchuria Moukden, Manchuria Moukden	Kaiyuen Moukden Women's	Young Christie Hornor, Blaxter	2 5 5	12 12 5	30 60 339	2 5 5	123 367 339	38 1,917 7,401	33 13,973 6,685	330 250 71	330 22,595 4,304	803 363 184	105 105 104	6 6 5	232 232 232	232 232 232	232 232 232					
Women's Union Missionary Society	Shanghai	Margaret Williamson	Reifnyder, Newell, Garner																				

## ASSOCIATION NOTES.

## BRANCHES OF THE C. M. M. A.

- Central China Branch* :— Dr. J. C. Cormack, Hankow, Secretary.  
*Kuling Branch* :— Dr. W. A. Tatchell, Hankow, Secretary.  
*Manchurian Branch* :— Dr. W. Phillips, Newchwang, Secretary.  
*Korean Branch* :— Dr. H. H. Weir, Chemulpo, Korea, Secretary.  
*Shanghai Branch* :— Dr. A. W. Tucker, St. Luke's Hospital, Secretary.

## NEW MEMBERS OF THE C. M. M. A.

*Joined through the China Medical Journal.*

- WM. J. WEBB ANDERSON, M.D., Ch.B., Leeds; M.B., Victoria, Manch, Wesleyan, Fatshan.  
 ANNA EVANS CORLIES, M.D., Woman's Med. Col. of Penna, A. B. M. U., Yachow, Szchuan.  
 BRITON CORLIES, M.D., Phila. Medico-Chir., A. B. M. U., Yachow, Szchuan.  
 ARNOLD DAVIES, M.B., Ch.B., Ed., L. M. S., Tsang-chow, Chihli.  
 MARGARET EDITH BRYSON, M.B., Ch.B., Glasgow, Eng. Pres., Chinchew.  
 EDWARD CUNDALL, M.B., Ch.B., Eng. Wes., Hankow.  
 ELIZA E. LEONARD, M.D., Univ. of Mich., Amer. Pres., Peking.  
 EDWIN ROBERT WHEELER, M.B., B.S., Lond., M.R.C.S., L.R.C.P., Un. Med. College, Peking.

*Joined through the Shanghai Branch* :—

- JAMES LEE HAMILTON PATERSON, M.B., Ch.B., Ed., L.M.S., Shanghai.

The list of members of the Association has now grown so large that, *malgré* the By-laws which call for its publication in the JOURNAL, it is being issued separately. It has not been found feasible to get out a year book, as the Publication Committee's work has ridden rough-shod over everything else in the secretary's office. There are many details yet lacking to bring the list into a fair measure of completeness. The total of active members now stands at 324; 95 women and 229 men. A goodly number! And yet there are those who still coyly stand aloof. During 1907, 58 joined the active ranks. Of these, there were 17 women and 41 men.

*Medical Missions in India* gives a list of 313 medical missionaries in India, an addition of twelve over the previous year. It also gives a list of missionary nurses. These number 124, an increase of 26.

In China and Korea there are probably about 398 medical missionaries. It is only recently that nurses have been appointed to any extent, and the number, according to our incomplete returns, is ten. According to the list published annually in *Medical Missions at Home and Abroad* the roll of medical missionaries holding British degrees or diplomas is now 395, being 257 men and 138 women. In the last eighteen years the number has more than trebled.

The *Medical Missionary* gives an incomplete list of those serving under American and Canadian Societies; the total being 386.

A real awakening on the subject has taken place of late years in Germany, and the number of medical missionaries proceeding from that country and Switzerland must be close on a score. France only sends out three or four. The whole number of Protestant medical missionaries must now total over 800.

The statistical sheet for 1907 is sent out with this number. There are two drawbacks to its completeness. The lack of a perfect statistical scheme that will suit everyone and the lack of a perfect set of medical missionaries who will *all* send in their returns. In spite of these defects the yearly figures are of great interest and value. A letter from Dr F. F. Tucker will be found in the correspondence pages. We shall be glad to have a general expression of opinion on his proposal.

Dr. Meadows writes :—“ You will be pleased to learn of the organization of the West River Medical Association. It was organized last July and held its second meeting the last of January, at which time it was voted to ask for admission into the central Association. Our association has enrolled all the doctors working in the province of Kwangsi, six in number, and all the doctors in Kwangtung located

on the West River and its tributaries. We have enrolled fourteen members in all. Five years of service is the longest term any of our members has spent on the field, so you see we are all young. Do not expect much of us for many years, but be prepared to assist this small band of inexperienced physicians until we can become thoroughly established, and I assure you we will then do our best to share with the older associations the burdens and the responsibilities of the work. May the year 1908 be a good year for you and your work."

This is very good news. We heartily welcome the latest branch. The members are no less modest than energetic. All success to the work in that turbulent region.

The Hodgkins Fund Prize of \$1,500 is offered by the Smithsonian Institution, Washington, D. C., in accordance with the following announcement:—

SMITHSONIAN INSTITUTION—HODGKINS FUND PRIZE.

In October, 1897, Thomas George Hodgkins, Esquire, of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man."

In the furtherance of the donor's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications.

In connection with the approaching International Congress on Tuberculosis, which will be held in Washington, September 21 to October 12, 1908, a prize of \$1,500.00 is offered for the best treatise that may be submitted to that Congress "On the Relation of Atmospheric Air to Tuberculosis."

The treatise may be written in English, French, German, Spanish or Italian. They will be examined and the prize awarded by a Committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

The right is reserved to award no prize if in the judgment of the Committee no contribution is offered of sufficient merit to warrant such action.

The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,

*Secretary, Smithsonian Institution.*

Washington, February 3, 1908.

The Hongkong and China Branch of the British Medical Association has taken a room situated at 17a Queen's Road Central, Hongkong for the use of members. Some monthly medical periodicals are provided and the nucleus of a reference library is being formed. Under the energetic influence of the Secretary, Dr. Herbert Sanders, Matilda Hospital, this branch is moving ahead. He asks that a notice as to the opening of the room be inserted in the *JOURNAL* and reports a splendid paper on leprosy, also a good clinical evening. Those in the vicinity of Hongkong should note that the meetings are held on the third Thursdays of the month.

He writes further:—"The Manila Conference appears to have been a success. They are desirous of developing further the uniting idea and having a bi-annual conference. They were sorry that none of you were at the conference, as it has been suggested to invite the *JOURNAL* to be the official organ. Is this possible?"

In a welcome letter from Dr. Fleming, Ichowfu, she says:—"I have just completed a comfortable two story hospital, semi-modern, which is an advance in this isolated city. We are working and hoping for better facilities and larger support when the natives appreciate more the work being done for them. This is a very poverty-stricken region."

Heartiest congratulations and best wishes for the highest success in the work done in the new hospital.

Is the title for the fair physicians settled yet? If not, here is a contribution from the far West. "I saw an editorial query as to whether we prefer to be called lady physicians or women physicians. I much prefer the latter. The first seems to me cheapening a serious profession."

The following is culled from a letter from Dr. Preston Maxwell :—"The work here is very heavy. Over 300 outvisits since November first, close on 500 in-patients and 250 operations of all kinds. Have done two epipoplexys in the last six months and a considerable number of urethrotomies. We have no stone here or practically none. Just now there is a severe epidemic of influenza with severe cases of pneumonia."

Influenza would seem to be on a pandemic rampage this spring and to be of a respiratory type.

There is a symposium on *Medical Missions in India* on the subject of "Appendicitis in India," from which it would appear that the experience of the editor (Dr. Macphail, of Santalia), who says that in eighteen years' practice in India he had never diagnosed a case, and who suggests that the simpler diet of the people is the cause of their immunity, is largely confirmed by a number of medical correspondents. This is pretty much on a par with our experience in China.

The following extract is from a letter written by Dr. McKean, of the American Presbyterian Mission, Siam :—

"At last the government has granted our request and has turned over to the mission a tract of land, comprising one hundred and sixty acres, for the purpose of a leper asylum. This land is the lower half of an island in the river some four miles below the city of Chiangmai. It is an ideal place in every way for the purpose intended. It is now covered with jungle and uninhabited, but a portion of it can, without great expense, be brought under rice cultivation. About half of the land is suitable for rice planting. This, of course, is of great value, as it insures a considerable part of the food for a goodly number of persons. Other parts of the island are high and suitable for buildings. We believe that the whole of the tract can be made to yield food for the people for whom it is intended by planting it. At no time since we became specially interested in the lepers, some ten years ago, have we been in a position to solicit funds for doing permanent work among them, because we had no assurance of securing land. Now that the land has been granted, we must ask our friends to assist us in beginning this work."

We need hardly assure Dr. McKean, who is one of "us," that he has our warm sympathy in this great undertaking. The great progress recently made in establishing Christian institutions for the care of lepers, is very remarkable. This has been especially true of India but we can think with satisfaction of the work done in China—in Pakhoi, Tungkun, Hangchow, Hsiaokan, and elsewhere. There is still a vast opportunity for such institutions in South China, where the disease is so common. The report of the leper home at Tungkun is very fascinating reading. Curiously enough just before reading it I had been hearing of the successful use in Singapore of a Turkish injection. This seems to have been tried too in Tungkun on a couple of cases with good results. It is prepared by Messrs. Kalle & Co., Biebrich, Germany, from the formula of two Constantinople doctors. It is an oily substance called Hastin. The price is not mentioned. It must be remembered, however, that similarly favorable reports of Rust's vaccine were published some years ago.

Profitable employments for lepers is always a great difficulty. At Pakhoi the men have for eight years been at work printing the Bible in the Cantonese dialect. The work of lace-making has been introduced by Mrs. Beauchamp amongst the women. They are said to be very skilful with the bobbin, and the silk and linen lace produced by them is sold after being carefully disinfected.

The China Missions Emergency Committee, which was formed in G. B. in connection with the China Centenary Conference, has resolved to help in establishing in China several medical colleges of the same rank as the Union Medical College in Peking. This will be done by supplementing the efforts of the missionary societies who are engaging in this work. It is felt that there is no way in which we can better show the healing and saving grace of Christ to the Chinese people than in training for them, under Christian influences, Chinese medical students by the thousand, who will bring relief to their maladies and sufferings.



PUBLICATION COMMITTEE.

SUBSCRIPTIONS TO THE PUBLICATION COMMITTEE FUND.

A Nonny Mouse... ..	\$204.08	Per Dr. J. B. Neal:—		
Dr. O. T. Logan ... ..	20 00	John T. Boyd, Esq.	G. \$ 50	108.84
Mr. Sidney Clarke ... ..	100.00	Mrs. Henry Mc-		
Dr. Emma E. Fleming ... ..	5.00	Cormick.	G. \$100	
Dr. C. E. Blair ... ..	6.00	Henry B McCor-		
American Hospital, Foochow, per Dr.		mick	50	
Lyon ... ..	10 00			
Dr. Percy C. Leslie ... ..	5.00		150=	Tls. 242.91
Rev. M. C. Mackenzie... ..	10.00	Sir Robert Hart, Bart,		" 500.00
Dr. W. A. Young ... ..	10 00	London Missionary		
Basel Missionary Society ... ..	£20 213 60	Society	Gs. 10	" 83.47
American Board, A. B. C. F. M. G. \$100	215 95			Tls. 826.38
Church Mission ... ..	206.00			\$1,767.52
Methodist Episcopal Mission G. \$100	217.68			
Dr. J. L. Scales, per Dr. Lambuth, G. \$200	435 37			

Occasionally queries are received as to what books the Committee has prepared and placed on sale. Please note that this can always be ascertained by referring to the inside page of the cover. This list is kept up to date. Further information as to the Committee's plans will be found in the Report for 1907 sent out with this number of the JOURNAL.

The third reprint of the Physiology should be ready towards the end of May. Let me again emphasize the necessity of obtaining the English book, Halliburton's (Kirkes) Physiology. Without it this difficult subject will be extremely hard to teach. Men have even been known to give the Chinese translation to their hospital pupils and tell them to read it up themselves. As well try the Book of Changes. It is the most difficult subject in the medical curriculum and requires to be taught in the most painstaking and clearest way, otherwise the students will get the book up by rote without understanding many parts of it.

It has been suggested that the Committee stock the originals of the books translated. It would be glad to do this if it could be sure of a sale for them. Meanwhile Mr. Edward Evans, 30 North Szechuen Road, Shanghai, will be glad to procure any books required. Let us be foresighted and order the books required long beforehand. Those needed for the autumn session should be ordered now.

I would like to advise new-comers not to touch our terms or books during their first year of study. They are too technical and had better be left to the studies of the second year. Chinese teachers, ignorant of Western medicine, are greatly puzzled by them.

Several men have highly recommended the *Edinburgh Stereoscopic Atlas of Anatomy*.

Dr. Churchill writes:—"Next to dissecting this is the very best thing. We use it and are awfully pleased with it and recommend it to other teachers."

I saw it at home, and certainly the dissections stand out in very fine relief.

Dr. Cochrane mentioned that Underwood & Underwood's stereoscope gave better results than the instrument supplied with the photographs.

There are 240 plates, and the net price is £6.5. Second-hand copies can sometimes be had.

P. B. C.

## Reports of Local Branches.

### CENTRAL CHINA BRANCH.

#### Syllabus for 1908.

- Feb. 19, Hospital Economics, the President. At Wuchang.
- March 11, Clinical Meeting. At Wusenmiao.
- " 25, Diseases of Women, with special reference to Out-patient Treatment, Dr. Glenton. At Hanyang.
- April 15, Modern Research in Relation to Dysentery, Dr. R. T. Booth. At Concession.
- " 29, Clinical Meeting. At Wuchang.
- May 13, New Remedies and their Application, Dr. A. Tatchell. At Wusenmiao.
- " 27, OPEN MEETING. The Missionary Side of our Work, Dr. G. Huntley. At Hanyang.
- Sept. 30, Clinical Meeting. At Concession.
- Oct. 14, Observations on Necrosis in Bone, Dr. T. Gillison. At Wuchang.
- " 28, Report of Investigation Committee, Dr. J. MacWillie. At Wusenmiao.
- Nov. 11, Clinical Meeting. At Hanyang.
- 25, Paper, Dr. R. Aird. At Concession.
- Dec. 16, Recent Epidemic of Malaria in Central China, Dr. J. G. Cormack. At Wuchang.
- " 30, Clinical and Business Meeting. At Wusenmiao.

We have held three meetings this year up till now, and a brief epitome of these may not be uninteresting.

The first meeting of the year was devoted to an address by the President, Dr. John MacWillie, followed by a discussion on Hospital Economics. All the members brought specimens of such things as bandage cloth, cotton wool, lint, gauze, etc., etc., and prices and qualities were compared.

Dr. MacWillie showed how by our scheme of purchasing unitedly for this district alone we had probably saved \$2,000 last year; he thought a larger saving might be effected in the future as the different markets became better known. He pointed out how we might save hospital expenses by stricter attention to purchase of such things as rice and coal, where lack of care often leads to our being cheated out of large amounts of money.

At our second meeting we had many interesting clinical cases. One of epilepsy, seemingly due to pressure irritation, was shown by Dr. Booth, and the members had an

opportunity of witnessing three of the epileptic seizures while the case was being shown. The young lad was totally blind, but looked strong and healthy; he gave a history of the trouble beginning with pain and vomiting.

Treatment by iodide had given slight relief, but latterly has lost its effect. There was paresis of the right side, but both sides were involved in muscular spasm and contraction during an attack, though the right side was more marked.

Considerable doubt was expressed as to any benefit being gained by operation, and a course of treatment by bromides was suggested, and if that failed after a thorough trial, an exploratory trephine over the left Rolandic area should be attempted.

Our last meeting was also a clinical one. The following cases were shown and discussed:—

*Dr. Tatchell.* Sarcoma of neck in boy, inoperable, but an attempt was to be made to treat it with Colles fluid.

*Dr. Huntley.* (1) A case of irido cyclites and keratitis punctata in a boy. As no stigmata of inherited syphilis were present, a tubercular origin of the trouble was suggested.

(2). A case of enlarged spleen in a boy, showing a distinct icteric tint in face and conjunctivæ. No anæmia. Abdomen swollen, but no free fluid present; no ova found in fæces, but as only one examination had been made, it was thought this was not conclusive. Santonin had been tried, but with no result. Kalaazar was suggested as a diagnosis.

Dr. Bretthauer showed a very fine specimen of a hydatiform mole; details of case will be sent to the JOURNAL, as such tumours are very rare.

Other cases of minor interest were shown and discussed.

J. G. CORMACK,

Hon. Sec. C. C. M. M. A.

## Medical and Surgical Progress.

### Pathological Notes

Conducted by JAMES L. MAXWELL, M.D.

The place of the Spirochæta Pallida in the diagnosis of Syphilis, by Alex. MacLennan, M.B., C.M.

I think the time has now come when the presence of the spirochæta pallida may be accepted as diagnostic, though it has not yet been proved to be the cause of syphilis. The reason for this discrepancy, I hold, is that the *S. pallida* does not represent the whole life cycle of the organism, but only a part of it. The failure to demonstrate the organism where the infective agent of syphilis must be present can only be explained by supposing that the organism then exists in a different form.

The well-recognized disproportion between the numbers of the spirochætes and the intensity of the disease has given rise to some comment. The failure, therefore, to demonstrate the spirochæte is merely negative, and does not influence the diagnosis at all.

For clinical purposes the demonstration of the organism in a smear preparation is easy of application, though sometimes it entails considerable search. When the spirochætes exist in profusion this method is most successful, and in the early stage of the primary sore, before the secondaries come out, a certain diagnosis may be made after finding the spirochæta pallida. The presence of a single spirochæte does not of necessity make a diagnosis of syphilis, but on account of the ease with which the spirochæte are destroyed the presence of one specimen is of more significance than the demonstration of a single bacillus in a questionable tuberculous lesion. I would even go so far

as to say that the recognition of a single undoubted spirochæta pallida in a smear from a probable syphilitic lesion would place the diagnosis beyond question.

The difficulty in the employment of the spirochæte in the diagnosis of syphilis is to diagnose the spirochæta pallida. To recognize a typical specimen when lying side by side, say, with the spirochæta refringens is not difficult, but when atypical forms are met with, and when especially the preparation shows the fine, somewhat closely curved type of refringens, the matter requires some discrimination.

The technique of staining films is now so perfect that the preparation of the specimen takes only a few minutes, and can be done "while you wait" without unduly taxing the patience. The discovery of the pallida in such smears influences treatment very considerably. If it be accepted, as I hold it ought to be, that the presence of the pallida is diagnostic, then the institution of energetic treatment is mandatory.

In practically all primary sores the presence of the pallida may be substantiated. As a rule these sores do not require such confirmatory evidence, though, as pointed out by Fournier, there is no certain sign or signs by which a diagnosis can be made. Therefore the vast importance of such an aid to diagnosis as finding the *S. Pallida* is apparent.

In the secondary lesions I have found difficulty in demonstrating spirochætes in film preparations.

In the tertiary lesions spirochætes have been repeatedly found and

successful inoculations have been carried out from tertiary lesions, but for diagnostic purposes they are a negligible quantity.—*British Medical Journal*, 23rd November, 1907.

Note on the Spirochæte of Yaws (*Spirochæta Pertenuis*), by Aldo Castellani, M.D.

After describing the morphological characters of the spirochæte the writer continues:—

From the description I have given it will be seen that the yaws organism shows morphologically a great resemblance to the organism of syphilis. In fact I was for a long time of the opinion that the two germs differed biologically rather than morphologically.

I do not think that too much importance should be given to slight morphological details; the two organisms are certainly two different species, as syphilis and yaws are two different diseases. That syphilis and yaws are two different diseases has been proved beyond any doubt by the experimental researches of Charlouis in man and of Neisser and myself in monkeys.

Charlouis as far back as 1881 proved that yaws patients could be successfully inoculated with syphilis. Powell described two cases of syphilis supervening on yaws. Recently we have been able to demonstrate that monkeys inoculated with syphilis do not become immune for years and vice-versa.

The following facts are in favour of the *S. Pertenuis* being the specific cause of yaws:—

1. In the non-ulcerated papules, in the spleen, in the lymphatic glands of yaws patients, as well as inoculated monkeys, the *S. Pertenuis* is the only organism present. No other germ can be demonstrated, either microscopically or by culture methods.

2. The extract of yaws material containing the *S. Pertenuis* but—so far as our present methods of investigation permit us to say—no other germs, is infective to monkeys.

3. The extract of yaws material from which the *S. Pertenuis* has been removed by filtration becomes inert, and monkeys inoculated with it do not contract the disease.—*British Medical Journal*, 23rd November, 1907.

## Gynecology and Obstetrics.

Conducted by KATE C. WOODHULL, M.D.

### CASE OF FETUS COMPRESSUS.

Exhibited by Dr. Charles B. Reed at the Chicago Gynecological Society, September 20th, 1907.

Patient aged 36. Delivered in the Chicago Lying-in hospital service in July, 1907. No history of twins previously. The mature child was born living and weighed twelve pounds. The fontanelles were almost closed. The "fetus compressus" measures 4 c.m. x 2.5 c.m. and was approximately two months old at the time of its death. There were no external manifesta-

tions of the death of the fetus that could be learned from the patient.

### *Frequency of Fetus Compressus.*

In one series four instances were observed in 475 cases of labor; one fetus being macerated, the others normal.

*Cause of death* in these cases may be summarized as follows: 1. Interference with circulation. 2. With single chorion, for instance, the conditions regarding nourishment are quite difficult, and one egg must suffer. 3. One twin grows faster and absorbs the nourishment

of the other. 4. One egg may be accidentally injured, as by a knot in the cord, or by disease, and slow death follows.

*Post-mortem Changes.* The liquor amnii is absorbed. The fetus is compressed flat. The post-mortem changes are most pronounced the earlier in the pregnancy the death occurs. Sometimes the twin egg is found merely as a yellowish or white flake, and might possibly be mistaken for an infarct on the placental margin.

These cases of course are not certainly diagnosed, but the larger ones may be definitely differentiated. In later months the bones of the child resist compression after death and a macerated child will be found.

When the injury is not mortal we find cases of deformity such as acardia, acephalus, etc., depending on the time, the location, and the extent of the injury.

The effect on the pregnancy may or may not be pronounced. Occasionally the pregnancy is interrupted, but usually the pregnancy goes on to term. Transient hemorrhage may occur, but at the time of fetal death, and the diagnosis can only be after labor, when the time of the hemorrhage and the size of the fetus can be correlated.

In labor the dead twin sometimes causes difficulty in diagnosis, or two babes from triplets may be compressed as Bock and Reuss have observed, while v. Lichen reports the case of a fetus papyraceous that was born before its fellow. Becker saw one expelled on the fifth day after labor.

The practical significance of these cases rests on the fact that the compressed fetus may remain unnoticed in the uterus after the expulsion of the living child. Cases have been reported where the woman died of postpartum hemorrhage and the post-mortem revealed

a retained "fetus compressus" as the cause of the atony.—*Surgery, Gynecology and Obstetrics*, January, 1906.

#### LACERATIONS OF THE PERINEUM.

A very carefully prepared paper on this subject by Ellice McDonald with 48 illustrations, read before the New York Academy of Medicine, October 25th, 1907, is reported in full in *Surgery, Gynecology and Obstetrics*, January, 1908. Some of the more important points are as follows: In giving the history of the operation it is stated that, The first historical reference to the subject is found in an early work, author unknown, that Tortula, a midwife attached to the school of Salerno, who lived in the eleventh century, cured a laceration of the perineum by operation. Causes of perineal laceration: 1. Too rapid expulsion of the child, so that tearing of the perineum instead of stretching results. 2. Relative disproportion between the presenting part and the parturient outlet. 3. A faulty mechanism of labor whereby the largest circumference of the head passes the perineal ring. 4. The use of forceps.

Rapidity of delivery is without doubt the most frequent cause of perineal laceration. This is particularly seen in those cases of precipitate delivery where the head comes through the birth canal rapidly and impinges upon the perineum with almost the force of a blow. The passing of the head through the perineal outlet should undoubtedly be retarded until the parts have been softened and stretched. A preliminary digital stretching is most useful in primiparæ; although often a painful procedure, it can, however, be done during the labor pains and is a means of stimulating their force and frequency.

A frequent cause of perineal laceration is the pressure of the head upon the perineal body and the lack of retraction between the pains. The maternal parts become bloodless and tense and tear readily with further descent of the head. An additional factor in the production of this condition is the attempt to control expulsion by pressing the taut perineum against the cincture. This wounds the perineum and aids in the production of the enemic condition. The advancement of the head should be controlled without making any pressure upon the perineum.

Strong pains are a definite factor in the production of perineal injuries, but may readily be controlled by chloroform.

The use of forceps as a causative force is one which varies very much with the methods of different operators. The harm they cause depends upon: (1) The kind of forceps used and (2) upon whether the operator delivers the head with the forceps or not.

Forceps with the long blade like Simpson's may cause laceration of the perineum in two ways. First, directly on a backward pull by the breadth between the shanks where they join the handles, which unduly stretches and wounds the outlet at a level with its greatest frailty, the posterior fourchette. Second, the blades themselves do not closely approximate the fetal head, and the edge of the blade extending beyond the head, impinges upon the vaginal floor and is forced into the tissue. This condition is quite common when the attempt is made to deliver the head through the ring without removing the forceps. When the handles of the forceps are turned upward in order to extend the head, the blades, not fitting the head, but grasping the parietal processes firmly, turn upon these eminences as upon a pivot, with

the result that the point of the blade extends beyond the head and impinges upon the pelvic floor. Further descent of the head drives the point into the tissue and starts a laceration. In such a condition it requires but a small beginning of a tear in the mucous membrane to result in a large laceration.

The secret of the avoidance of tears in forceps delivery is the use of proper forceps and the removal of the forceps as soon as the head can be controlled by the hand.

The author has made trials by practical use of many models of forceps and has finally come to use solid blade forceps after the Tucker-McClane model. These forceps fit the head well, cause little traumatism to the vagina and perineum, and are easily applied without causing abrasions or injury. The best types of these forceps are the O'Grain and the McDonald models, made by Tieman, New York. These forceps may be applied and the head drawn down until it can be controlled by pressure upon the forehead between the coccyx and the anus. No attempt should be made to deliver the head without removing the forceps.

With the acquirement of skill and the use of proper forceps, there is no reason why there should be more lacerations directly due to forceps in instrumental deliveries than in non-instrumental deliveries. The head may be delivered as slowly and as much care taken as in non-instrumental deliveries.

A frequent cause of perineal lacerations which is often credited to the forceps operation is the traumatism done by the ineffectual labor pains pressing the presenting part against the pelvic diaphragm. The presenting head should not be allowed to remain upon the perineum without advance for more than an hour and a half, and usually not that long.

## Correspondence.

EDITORS OF JOURNAL.

DEAR DR. JEFFERYS: The CHINA MEDICAL JOURNAL for March came by this morning's mail, and in looking *A Snapshot from Peking.* it over I noted your article on "Kodaking for Small Game". In it were the photomicrographs and drawings of your "perplexity". I am writing to throw some light on these, if possible. I think that there is no question that what you describe are the compound gonidia of one of the members of the order uredineæ, i.e., the so-called rusts, a group of fungi. These gonidia, or conidia, or teleutogonidia vary in color from light yellow to almost black, and are one to many celled, the septa being transverse or both transverse and longitudinal. Each cell has a double outline due to its thick wall and there is usually a constriction where two cells join. There is often an oil globule (?) in the center of each cell. The compound gonidia are attached to the mycelium on which they grow by a "stem" which has cellulose walls and is doubtless the "neck-like protuberance", which has "either a pair of lips or a slit-like opening communicating by a tube with the upper compartment". As you will see this description fits the tube-like "stem" by which the gonidium is attached to the mycelium. This "stem" is brittle and breaking off scatters the spores. The point at which it breaks gives the variation in the picture presented. I hope that this description will be of some help. If you can refer to some work on cryptogamic botany, you can probably discover the genus to which your "hinsect" belongs.

While in college I spent two years with cryptogamic botany under a man who was considered an authority, especially on the rusts and smuts. It is now nearly ten years since I have looked at my old friends and I find that I have none of my notes nor books containing keys for determination of genera and species. That is comparatively unimportant, as these organisms are not pathogenic so far as I know. While in medical college I was struck with the fact that while bits of vegetable tissue, mould-spores, and the like are very frequent in stools, practically nothing is said about them in books on clinical diagnosis except a general warning not to be deceived by them. As cellulose is not digested, it must pass through the alimentary tract and appear in the feces. Plant tissues are as varied as animal, and unless one is familiar with these varieties, many mistakes are likely, or time is spent in retracing ground already very familiar to botanists.

I am a little puzzled by your expression, "It is always alive". The spores which I describe are not motile, and could only appear so when carried by diffusion currents on the slide. They doubtless are alive at the time you observe them, and many mould spores can be made to germinate on artificial culture media. I wrote my college graduating thesis on cultural methods for saprophytic fungi, and in the course of my work devised a satisfactory moist cell for such work. It is merely a block of wood about three by two inches and an inch thick. In the center is a cavity covered by a large oblong cover-glass and with a "slide" for the bottom. A hole about  $\frac{1}{4}$  inch in

diameter is bored in one end to allow inoculation of the medium, which is spread on the cover-glass. This hole is plugged with cotton. The whole apparatus is, of course sterilized previously. This block can be placed on the stage of the microscope and the germination and development of the spores observed. For the work in question probably the ordinary "hanging drop slide" would do perfectly well. As to culture medium, moulds in general like acid, rather than alkaline, reaction, but here, as with bacteria, there are saprophytes and also strict parasites, so that it is sometimes impossible to grow them artificially. A good medium for general use is a *prune* decoction solidified with gelatine or agar-agar.

I might mention along this line another instance which appeared in the JOURNAL and which I did not write about for lack of time. I have not my file of JOURNALS at hand to refer to the special number. It was an article in which the author thought that he observed pieces of liver tissue in the stools. Such tissue is likely to be digested by the intestinal juices, or decomposed by the bacteria there resident, before it could appear in the feces, and there are forms of vegetable tissue, that to some degree resemble liver parenchyma (and also called "parenchyma" from the predominance of thin-walled cellular tissue) and which might easily be mistaken for the former by one not familiar with plant histology. I am of the opinion that in the case I mention, such a mistake was made.

If you find the bodies you describe in a patient's stool repeatedly and in large numbers, I should suggest that you examine the articles of diet and see whether you do not find it to contain these spores and perhaps the mycelium also.

Perhaps all my remarks are wide of the mark, but I hope you will

take them for what they are worth, as an attempt to help you solve your puzzle. I wish I had more time for investigation, but I am just beginning to teach in Chinese after being here three years and I find my hands more than full with this and other duties that I cannot put aside.

Dr. C. W. Stiles, to whom you sent your specimen, was lecturer on Medical Zoology at Johns Hopkins University while I was there, and I shall be interested in his verdict. I remember the day when he announced to our class the discovery and naming of *Uncinaria* (or *Anchylomastomum*) *Americana*, in which he has been so much interested since.

Cordially yours,

CHARLES W. YOUNG, M.D.

P. S.—In your photomicrography I think that you will get better results and cut down the time of exposure if you discard the use of the the microscopic eye-piece and the camera lens. Neither is essential, though the latter enables you to increase the magnifying power. You will see this if you glance at the optics of the case.

UNION MEDICAL COLLEGE,  
PEKING, March 31st, 1908.

DEAR DR. COUSLAND: Herewith statistics, such as they are. It is a convenience if two blanks are sent *The "Onions" of Statistics.* each time, so that a copy is preserved in the same form, though that is a small matter.

Though the difficulties of reporting on the religious aspect of the hospital work are evident, and have oft been discussed, it nevertheless seems to me that it might

be well to make some sort of an effort at it, as, e.g., *number of full days instruction given by Chinese* and ditto *by foreigners*. The fraction of a day given often by one or more foreigners would thus appear and the parts of days given by medical assistants or others. However it may not be wise, though I for one would like the information, and I can see that to merely call for the number of religious workers, or the number of "converts" would be very misleading. Even in calling for the number of days' religious effort it would have to be remembered, as Dr. A. H. Smith would say, "There's a difference in onions."

With best wishes, and this would be my valentine if I had thought quickly enough to date it yesterday.

Sincerely,

FRANCIS F. TUCKER.

P'ANGCHUANG, February 15th, 1908.

EDITORS OF JOURNAL.

DEAR SIR: I send you a copy of a letter which I sent to Dr. Neal some time ago, *Tuition at the U. M. C., Peking*, and also extracts from a letter sent by him to a friend in Shantung in reference to my letter.

I would not have sent these had it not been that Dr. Roys has written to you on this subject and I think it is necessary that friends should know a little more about this proposal of ours.

We feel more and more strongly that one medical school for North China is quite enough in the meantime, and this year's experience in seeking men for the entrance examination is confirming more emphatically than ever the third

point in my letter to Dr. Neal. Although we are getting students from different parts of China we have great difficulty in getting a sufficient number of men for our entering class.

I do not understand Dr. Roys' calculations. Our fees for resident students are only \$8 per month, with a few very trifling extras, amounting to about \$5 per annum. And any one who tries to do efficient work will soon find that such a fee means working at a very heavy loss.

Yours truly,

THOS. COCHRANE.

PEKING, February 22nd, 1908.

EXTRACTS FROM LETTER FROM DR.

COCHRANE TO DR. J. B. NEAL.

Besides all this there are practical difficulties which we have had some experience of, three of which are specially worth mentioning:—

I. *Cost*.—We have spent about 80,000 taels on our scheme here, and we shall have to spend a good deal more in order to keep the institution in a position which will enable us to hold our own against the proposed institutions of the Chinese and obviate the unpleasant alternative of being snuffed out by an awakened Board of Education.

II. *Staff*.—We find notwithstanding the large union which enables us to gather a considerable staff, that with language difficulties, furloughs, sick leave, etc., we have the gravest difficulties in carrying on the work.

III. We are very anxious that most of our students, as at present, should be Christians, but without a very wide field to draw from the supply cannot be kept up. You speak, I think, in your letter to Dr. Ingram about large classes, but it is most unlikely that we shall have large classes. We have fifty students at present it is true, but that is because a large number of mission students were waiting to enter the college. Missions cannot keep supplying any very large number of students to study medicine, and it is very difficult to get outside students well enough up to pass the entrance examination.

## EDITORS OF THE JOURNAL.

SIRS: Might I be permitted, though not a medical missionary, but as one who is much interested in their work and in the cause of medical education in China, to comment upon the letter of Dr. C. K. Roys in your January issue. He is evidently against the idea of any coalition between Shantung missions and those in Chihli, and while he admits that the Peking Medical College is doing splendid work, his faith in the motto that "Union is Strength" is not strong enough to permit of his taking further part in helping to make this school a practical success. I know nothing about the finances of the Western Shantung Mission, but on the face of Dr. Roys' letter they seem insufficient to allow that mission to start a medical college, not only in means but in teachers. Medical education on Western lines is in its infancy in China, and the present time is most important because the fair name and fame of the whole system will depend on the quality of the first batches of graduates. Although I have had no communication with Dr. Cochrane on the subject I heartily endorse every word in that paragraph of his letter quoted by Dr. Roys. It would indeed be nothing more or less than a "grave strategical error" at the present juncture, and for this reason, viz., that it is impossible to start fresh colleges and give a thorough, sound, up-to-date education on anything like the staff that could be raised in such places as Western Shantung; while, at the same time, it is near enough to Peking to send men able to give short courses of lectures in an already established school. I have no wish to be personal—Dr. Roys' and Dr. Neal's

names are too well known to let me make myself misunderstood in this direction—but not every medical missionary is competent to be a medical educator, and, in mere point of numbers, however capable these men are there are not enough of them to give sufficient attention to the running of a proper medical school. If such a school is to be anything more than an ordinary set of ambulance classes it will require a much larger staff than is at present available in Western Shantung. In Peking there are all the English and American medical missionaries (a proportion of them appointed with special reference to teaching in the U. M. college); in addition there are medical men fresh from the teaching centres at home who live in the college and give their whole time to it. There are also extramural teachers and examiners drawn from the Legation medical officers in Peking and from medical missionaries in the surrounding country. Even with this staff the college still finds itself undermanned and looks forward to the day when it will be able to avail itself of the help of some of its graduates.

The expenses of running a medical school are very great indeed. Microscopes, expensive anatomical models, books, apparatus and materials for practical work, laboratory outfits, heating and lighting, etc., etc., are such as tax to the utmost all the funds that Dr. Cochrane can collect. The sources of these funds are far from being inexhaustible, and no matter how good a thing it may be to have a "school at Tsinanfu to be provided for on a generous scale" Dr. Roys will soon find such support is not so readily forthcoming as one would at first sight imagine. There is a considerable amount of apathy among the Chinese as regards financial help and especially so to schools man-

aged by foreigners. Medical education is not a thing of creeds and sects, and those who open colleges should only do so after serious consideration of this point as to whether or not they will impose a religious test. If they do not do so it will limit their financial support from home, as subscribers to mission work abroad usually like to know their money is being spent to help the spread of the Christian propaganda, and the college is thus thrown more on the hands of the Chinese for its upkeep. In this case the college authorities would look to the whole tone of the institution to have an ameliorating influence on the character of the students. If, on the other hand, the test is demanded the usefulness of the college is restricted, as it debars all students (e.g., those who might be sent by government to prepare themselves for entrance into the army, navy, etc.) who, while willing to receive the education, are not prepared to submit to any such test.

Having watched the struggle for upkeep in an unendowed institution, such as the Peking U. M. C., I can assure Dr. Roys he will not have his troubles to seek in a similar undertaking in Shantung. I would respectfully advise him to consider the two items of men and money before he embarks on his scheme and to what extent he is justified in tapping the streams of help and diverting them into rills. Has he enough medical men at his command to efficiently undertake to carry students through a five years' course of study and all the many subjects entailed—*anatomy, physiology, pathology, bacteriology, medicine, obstetrics, surgery, clinical instruction, etc., etc.*? If so, has he enough means to build a college and equip it? If not, would it not be a better course to lend his aid to the strengthening of the Pe-

king U. M. College at the present time when it needs all the help it can get? If he throws his bread upon the waters in the shape of sending not only teaching help, such as Dr. Neal could give, but students from Shantung, he may be sure he will reap a substantial reward when these men return qualified graduates, who will be able to give him the assistance that he will find himself very much in need of when the Tsinanfu college opens its doors.

One of Dr. Roys' chief objections to the Peking school, so far as sending his Shantung students is concerned, is on the score of expense. One may hope he has gone into the other objections more thoroughly than on this point; the fact being that instead of his assertion that \$250 a year would be a conservative estimate of the amount required for each student it only costs \$77 (seventy-seven) a year to educate a student in the U. M. College. The fees are \$8 per month (the college 'annus' being one of nine months), plus a sum of \$5 a year for the extra expenses of practical classes. The sum of \$8 a month includes board as well as tuition.

I am, Sir, yours faithfully,

G. DOUGLAS GRAY, M.D.

PEKING, February 19th, 1908.

DEAR DOCTOR: Thanks for yours of March 26th, *Dr. Fowler on Furlough.* Within a fortnight we begin our flight homewards.

By my return I shall probably have made the acquaintance of Manson, Cantlie, John Hutchinson and other authorities. It will at least be interesting to compare notes on various forms of diseases met with in Central China.

I am promising myself a three month's course at the school of tropical medicine. It is becoming increasingly necessary for all of us to keep abreast of every branch of our profession. In our inland cities, with many calls upon our sympathy and time, we are apt to grow rusty on the bacteriological side of the work.

While we are bringing healing to the masses in China others, however, in other lands are busy at work in their special branches. Since I left the homeland the true sources and treatment of malaria have been discovered and many another thing besides. Shall we ever discover a specific for leprosy, I wonder!

I go home a wiser man than I came. Like many another worker in bacteriology, I thought at one time that I had *the* treatment up my sleeve.

It is good to know one's limitations and I humbly and frankly confess mine after persistent contact with, and treatment of, leprosy for over eight years.

The photograph A [See Frontispiece.] is rather an interesting case which I had under observation for over three years. Some describe the condition as syphilo-tubercular-leprosy. I have always disputed this term.

I am quite convinced that the syphilitic lesions are distinct from those of leprosy, and that the term is quite misleading on this account if for no other.

Unfortunately the specific treatment for the tertiary manifestations of syphilis exaggerate and seriously complicate the leprosy subject.

I regret to say that this poor fellow died of leprosy intoxication a week or two after being photographed. I should like to give you some account of this toxic condition, but I must reserve it for another

occasion. In the leper hospital attached to our leper home can always be seen men dying from sheer inability to combat the poison of their disease. For us as medical missionaries there is great satisfaction and thankfulness in the fact that ere they die many of the men develop traits of character which would put many a home Christian to shame. The majority of our inmates readily take in the main truths of Christianity, and by their consistent lives do much to commend the religion of Christ to those heathen who are brought into immediate contact with them.

Photo. B you will readily recognise as a typical case of tubercular leprosy. I think the photo brings out everything that can be put down to this type of the disease. Leprous keratitis deprived the poor fellow of his sight, and he now awaits the Home call with that dumb patience which comes to the sightless.

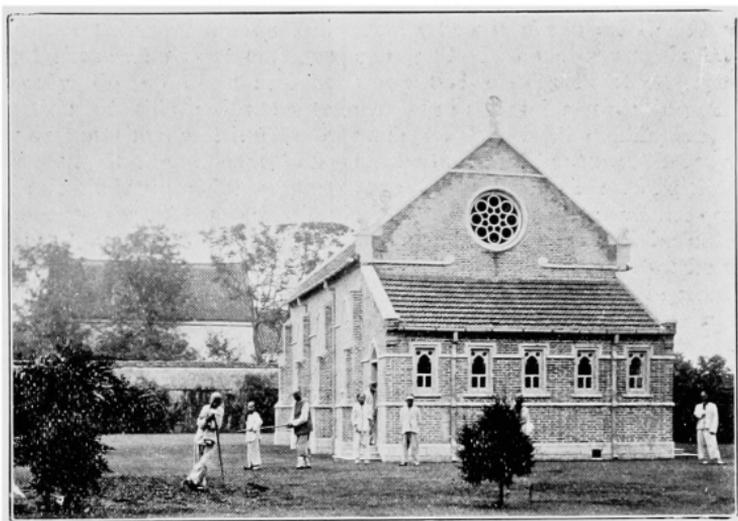
I shall try to give you a call when passing through Shanghai. Meantime, believe me, with kind regards,

Yours sincerely,

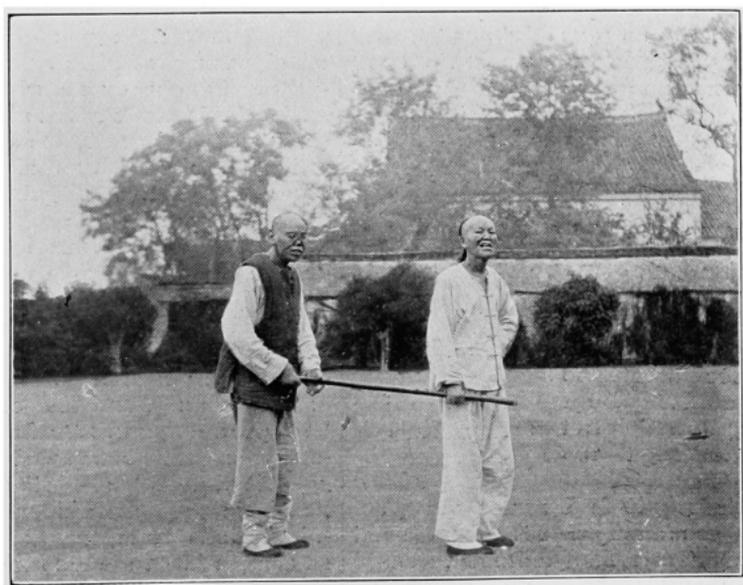
HENRY FOWLER.

P. S.—I send also a cut of our new leper chapel and another of the blind leper being led by an inmate fast becoming sightless himself.

The chapel is built of dressed granite (imported from Hunan) and our ordinary blue bricks. The building outside and in is neat and pretty. Unlike many of our inland churches, it too is "worshipful". Perhaps I may be allowed to say that the chapel is the gift of my beloved colleague, the Rev. Arnold Foster, B.A., of Wuchang, than whom there is no better friend to the leper in China.



THE NEW CHAPEL, HIAO-KAN.  
1907.



BLIND LEPER BEING LED BY ANOTHER LEPER ALMOST SIGHTLESS.

DEAR DOCTOR JEFFERYS: I have had good business in warm stages and have sent out thirteen in all.

**More Warm Stages to be had.** Recently I have found that if the brass strip is smeared with balsam and then heated quite hot over an alcohol flame, the plate glass sticks nicely and the adhesive plaster shown in the cut in the January JOURNAL can be dispensed with, as the moderate heat required for examination of amœbæ does not cause the balsam to run if thus treated with previous heating.

You might inform your readers that I can supply a dozen or so additional workers with these warm slides if they will get in their orders before the middle of June. I leave Shanghai on furlough the fourth of July on a British steamer!

Yours sincerely,  
O. T. LOGAN.

March 27th, 1908.

EDITOR OF JOURNAL.

DEAR SIR: I write to draw your attention to the paragraph under **A Correction.** Notes of the CHINA MEDICAL JOURNAL for March (p. 123), which has just reached me.

You are not correct in implying that the Dublin University Missions have taken up this work. They have *not* done so. All that they have done is to set Dr. McKenzie, at his own request, free from certain work in the T'uh Ning Prefecture and have permitted him to be on the staff of the school that the C. M. S. are opening in Foochow and to reside in Foochow.

It is not Dr. Sangster but Dr. Sanger who is to be on the staff.

It is most doubtful if the school will be opened in the autumn of this year.

The ground is not yet purchased (or was not a few days ago). Plans for the new building have to be forwarded home for approval and sanction before the building can be commenced.

For these reasons alone, not to mention others, it is almost certain that the new school will not be commenced this year.

I remain, yours truly,

B. VAN SOMEREN TAYLOR.

HINGHUA, April 2nd, 1908.

EDITORS OF JOURNAL:

DEAR SIRS:—With regard to the terms "lady physician" or "woman physician" may **A New Name.** I suggest a substitute, namely "DOCTORA," pronounced with the emphasis on the second syllable. It is shorter, euphonious, and would be understood by those who hear or see it for the first time, even in its abbreviated form "DRA." as prefixed to a surname.

It can be used in the third person as "a new doctora has come to our city", or in the second as "Good Morning, Doctora".

Though a little long, it is no longer than Mademoiselle, Signora, Baroness or Machioness. What is wanted is the feminine of 'Doctor' or 'Physician', and this is the most natural one I can think of, being more euphonious than "Doc-tress". Personally I prefer the word "Doctor" to "Physician" as the common appellation for those who practice the healing art, and its feminine is more easily formed. This term would also be convenient for married couples, one or both of whom are medical, e.g. :—

DR. and DRA. X,

DR. and MRS. Y,

REV. or MR. and DRA. Z.

The above term being both feminine and professional, people would be less likely to "forget" to give their due to our sisters who have earned and 'paid for' the privilege of joining the medical profession.

Yours sincerely,

FRED. H. JUDD.

JAOCHOW, April 9th, 1908.

## Personal Record.

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### MARRIAGES.

- At Hongkong, 28th December, 1907, Dr. PHILIP REES, W. M. M., Wuchow, to Miss ETHEL CRASKE, of Chelsea, London.
- At Shanghai, 16th February, Dr. HERBERT STANLEY JENKINS, B. M. S., Sianfu, to Miss M. L. (Daisy) LOVERIDGE.
- At Shanghai, 17th March, Dr. J. W. HEWETT, to Miss D. CONYERS, both of C. I. M.
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### ARRIVALS.

February 24th, Dr. and Mrs. GEO. C. WORTH and family, S. P. M.; Dr. and Mrs. C. H. BARLOW, A. B. M. U.; Mrs. J. B. FEARN, M. E. M. S.

20th March, Dr. ELLEN FULLERTON, A. P. E. C. M.

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### DEPARTURES.

12th February, Dr. JEAN DOW, C. P. M., for Canada.

28th February, Dr. C. J. DAVENPORT, L. M. S., for England.

6th March, Dr. J. G. CORMACK and child, L. M. S., for England.

— March, Dr. and Mrs. J. L. MAXWELL and family, for England.

— March, Dr. and Mrs. LAYTON and family, for U. S. A.

20th March, Dr. and Mrs. SYDNEY H. CARR and two children, C. I. M., for England, via Siberia.

24th March, Miss M. A. MACKEY, M.D., A. P. M., for U. S. A., via Switzerland; Dr. and Mrs. J. H. MCCARTNEY, M. E. M., for England.

30th March, Dr. and Mrs. T. COCHRANE and family, L. M. S., for Scotland.

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# Medical Publication Committee.

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