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OBSTETRICAL EXPERIENCES IN A CHINESE CITY*

By Mabel C. Poulter, M.B., B.Ch. (Glasgow), Futsing, Fukien.

In writing about obstetrical work in China I should first of all like to say that my experience has been limited to work in an up-country hospital and district immediately round it. Futsing is a small hsien city about 60 miles south of Foochow. I was sent here on my arrival in China and here I have remained ever since. Futsing is very behind the times in every way, and most distrustful of everything foreign, so work here has been very up-hill though we are going ahead now in some ways. My experience in obstetrical work ranges over fourteen years, during which we have had 1,291 cases in hospital and 191 outside; total, 1,482.

The need for such work is very great, as any one who has gone into the question knows. Up-country the people are hopelessly ignorant on the matter; the so-called midwives are usually old women who have never been trained in any way; their one idea, if they think a woman is in labour, is to tell her to bear down, and their one method of helping, should delivery not take place as soon as expected, is to "open the road for the baby" by tearing anything within reach of their finger nails. I have seen women with cervix, vagina, perineum all torn through—and not superficially, for the long sharp finger nails do their work thoroughly and deeply. No wonder the after-mortality is so great. Even if the woman recovers, too often she is maimed for life. We see many such cases with atresia, partial or complete, recto-vaginal fistula, vesico-vaginal fistula, etc., and not infrequently their condition is incurable.

* A paper read at the Biennial Conference of the C. M. M. A., in Shanghai, February, 1915.
For after-treatment the favourite medicine, often given immediately the child is born, is the crusted sediment from a long-used male urinal. This is sometimes given alone, sometimes mixed with some of the blood passed during the birth, and is supposed to have a very good effect on the uterus. If, in spite of this, the woman gets "hot," they give her pig's urine.

The woman is usually delivered sitting on the edge of the bed, the husband sitting behind supporting her. No attempt is made to wash her up afterward; she is just put into bed as she is, with either some native paper under her, or else an old dirty piece of a long-used native wadded quilt.

If the placenta does not come away soon, the midwife pulls on the cord, and, if not successful, either goes up for it with her dirty unwashed hand, or else ties a shoe on to the end of the cord and leaves it to come or not come as the case may be. As regards the child, when born it is left till the placenta is expelled, and then it is separated, usually by burning though the cord. Eyes and mouth are not attended to and the child is not washed. Occasionally, if very dirty it may get a rub over the face and head with native paper. The cord is attended to carefully, first with strong native soda, then with powdered cow-dung, and then wrapped up in a bit of old dirty native cotton wool. Is it a wonder that the death rate of children from tetanus is appallingly high? Quite 50%, some say 70%. The treatment for tetanus, preventive and curative, consists in tearing up the baby's gums with a needle. This is often done immediately they are born as preventive; many of the children die of septic mouth hæmorrhage or gangrene. In one village I heard that every boy baby born during a certain year had been so treated, and every one had died. Two women came into our hospital for confinement, one had lost eight, the other nine children, either of tetanus neonatorum or other condition due to this treatment. We hear of such cases on all sides, and see too many of the children, and yet it is only a very few that are beginning to realize that such conditions need not be. Till we came to Futsing city, no foreign doctor had been there, and for a time there was much distrust and opposition from native doctors which added greatly to the initial difficulties of our work.

When we first came to Futsing, we were only called to outside cases, and only as a last hope, but in 1902 we succeeded in persuading four women to come into hospital and try our methods. Four in 1902, six in 1903, and after that slow but steady progress, till in 1913 we admitted 247.
We began by using small wards of the general hospital for such cases, one ward, two wards, three, four, being set apart as needed. But we found this was inconvenient and in other ways unsatisfactory. The women did not like being among general patients, and we did not like it, as the proximity of general hospital patients did not tend to asepsis, and made us constantly anxious.

It was with great relief that in 1911 we moved all the obstetrical patients to an entirely separate block of buildings, at the opposite end of the compound, our house lying between the two hospitals. Now we have a complete maternity hospital, with 13 wards for 40 patients, also doctors' room, rooms for nurses and working staff, dining rooms, kitchens, store-rooms, well, washing and drying ground, all complete. The building is not all new, as we had not money enough for that, but we were able to adapt, alter, and add to a house we already had, and most convenient and workable it has proved. A covered way connects it with our house, and bells to doctor's and English nurses' rooms make it easy for us to be called at any moment.

As to nurses and their training, when we first began midwifery work, we did everything ourselves, as our helpers considered it such unclean and menial work. However, in 1906 our then nurse was willing to learn, and after much difficulty we succeeded in training her to take normal cases, though her theoretical knowledge was very small.

In 1908 we began systematic theoretical teaching with a class of three nurses who were taking the full general course. The mechanism of labor and the necessary anatomy were very difficult to explain as we had no model of the pelvis, no proper doll, no manikin.

Now we have a Gresham manikin, two models of the pelvis, and dolls; one English, excellent for teaching normal mechanism; the other German, better for teaching the operative course.

Our nurses now take monthly nursing and midwifery as well as the general course, staying on according to the rules of the Nurses' Association of China, for four years instead of three. We do not give the training to any but nurses who are going in for the full course with us, or have taken the full course in a hospital where there is no maternity work. I think this is most important. These women will most likely be placed in positions of great responsibility, in villages or cities by themselves, far away from any doctor's help, and they need to know far more than an ordinary English midwife requires to know. The three years' general nursing training gives them that extra knowledge and skill, which is to my mind an absolute necessity.
I should like to see it made a rule that no Chinese should get midwifery training who is not a trained nurse. This, I believe, is the rule of the Nurses' Association of China, but I do not think it is yet that of the China Medical Missionary Association, and surely we doctors ought not to be more lax than the nurses.

The nurses begin by taking the monthly nursing course, three months, being present, as far as possible, at all normal confinements. After this they begin taking cases under a senior, alternately delivering and managing the uterus. When they are competent to deliver multiparae, they are taught on primiparae, but not till they have taken the general nursing certificate are they taught to manage breech cases and to remove membranes, or manage abnormal cases. They are taught to make abdominal and vaginal examinations, and a full report of each case has to be given to the doctor. Systematic lectures are given by the doctor—the full course according to the rules of the Central Midwives Board of England, and Nurses' Association of China, Haultain being used as text-book—the nurses taking down the lectures. The mechanism of normal cases is taught on the model. A course of operative midwifery, and special instruction in all difficulties that may arise, is given to senior nurses who are considered suitable and capable. After instruction and practice on the model they are allowed to do difficult cases under supervision, so that when they leave, and have alone and single-handed to manage such cases in their own villages, they will be competent to do so. It is necessary for Chinese nurses to be so competent as they may be days distant from any possible help, but as I said before I give such teaching only to specially suitable certificated nurses, and I do not think any but such ought to have it.

Reception of Patients.—Women on admission are received by the head nurse. They are required to be accompanied by their husbands and to be introduced, either personally or by letter, by some one who knows them. We found this necessary to prevent the hospital becoming a mere resort for illegitimate births, and it has proved very effectual. We do not refuse widows, or those whose husbands are abroad, but in such cases are much more stringent as regards recommendation.

The wards are used in succession, and after each has had its full quota of patients, it is thoroughly washed and cleaned, and left empty for a few days' thorough airing. We use Lawson Tait beds, with native cotton-wool quilts in covers, straw mattresses in cotton covers, a mat above and below the mattress, and mosquito curtains. Everything is changed when the patient leaves, mattress sunned (burnt if soiled), mats washed with Jeyes fluid (mats also burnt if soiled), bedding
washed and sunned. Urine is examined, and if albumin is found, potassium acetate is given, generally in thirty grain doses; this gives excellent results, combined with careful dieting. If women require special treatment, such is ordered; if not, the routine is Bland's pills and Cascara Sagrada.

**Conduct of Normal Cases.**—Patients are confined in the ward they are going to be nursed in. I prefer this to a labour ward as it involves less moving of the woman after labour. Having so many wards we can easily put her in an empty one when labour begins. If her roommates are either still waiting, or else able to get up, let them move out for the time being.

Abdominal examinations are made before labour commences, and record made of diagnosis. Any abnormality in position of child is noted and, if possible, steps taken to rectify.

When pains begin the nurse in charge examines and if labour has commenced sends for the nurses on the case. Castor oil or enema is given according to size of os, pains, etc. The patient is washed carefully; she wears a pair of hospital cotton open trousers and, if bound-footed, a pair of hospital cotton socks are tied over her shoes. Two-hourly examinations are made and any abnormality or unusual delay at once reported. She is delivered on her back, her buttocks resting on a sloping block covered with zinc; this fits on to a large enamel iron tray into which the child is received.

I adopt the back position for several reasons. It gives the nurse excellent control over the patient should she be restless; it is good if chloroform be necessary; it is most convenient for the nurse attending to the uterus; and it is very good for controlling the head during delivery and caring for the perineum.

The use of the delivery-tray insures cleanliness and a minimum of dirty washing; Chinese absorbent paper is spread on the bottom, and the child is received into the tray, where it lies till the cord is tied and it is removed to be weighed and washed. The placenta is delivered into the tray, and after the mother is washed up, tray with placenta, soiled paper, etc., is taken away, when we generally find the macintosh, placed underneath as a precautionary method, is unsoiled.

**Emergency Cases.**—When we first opened the maternity hospital, we admitted emergency patients to special wards, but we found that having been meddled with by native midwives they invariably were septic and so a source of danger to others. Now all such cases are sent to the private wards of the general hospital, and special nurses are detailed for duty.
Cases complicated by diseases, such as phthisis, typhoid, nephritis, those with syphilitic sores, and cases where we have grave reason to fear danger to life of mother, such as those with cardiac trouble, are also sent to private wards in the general or isolation hospital, and nursed by special nurses.

Normal Births.—Of our 1,291 cases in hospital, 1,201 have been normal. Ages, ranging from 14 to 48 years. Parity: I-para to XXII-para.

Vertex Presentations.—The most frequent presentations have been V1 and V2. We have had a few births occipito-posterior, and in our early days of working I note a good many cases of forceps for unrotated occipito-posterior. We have now learnt that when diagnosed early, the position can be rectified by posture, by making the woman squat with knees pressed firmly against the abdomen. If unsuccessful, we try to induce flexion by passing the hand behind the occiput and bringing it down, or else passing the hand over the head, pushing the anterior fontanelle up, and at the same time pushing backwards to dislodge the head from the pubis. This rarely fails and, when successful, rotation takes place, often very rapidly, and the child is born as normal occipito-anterior. The last case of this presentation in the hospital (with head very high up, pains strong but absolutely ineffectual) was presenting at the vulva within ten minutes of the manipulation mentioned above.

Compared with English women, I think Chinese women have easier labours. With primiparae the first stage very often lasts only five or six hours and the second stage lasts very seldom over an hour. Primiparae are sometimes through in two hours from first to last.

Painless Birth.—I have seen painless labour in a primipara who, up to the time of delivery, persisted she was not in labour because she felt no pain. Young multiparae are generally very quick; second stage generally only a matter of a few pains. Old multiparae are very often slow owing to rigidity of os and want of power in the uterine muscle.

Cases other than normal vertex presentations.

Breech and Footling. Of these there were 41 cases in hospital, and 7 outside, just over 3%. One case was a footling, primipara, cord prolapsed, with os size of a half-crown. I dilated and delivered; mother and child did well. Extraction in one footling case, a second twin, was difficult owing to enormous distention of the abdomen.

Impacted Breech. Two cases. In one case the os contracted round the neck, causing great difficulty in extraction, and the loss of the child. In the other case, craniotomy was needed for the after-coming head.
Face Presentation. Four cases in hospital, three out. About 1 in 200. One, a primipara, presentation mento-posterior, cord very short, three times round neck. Delivery accomplished by putting on forceps reversed, and then turning. In one case there was an anencephalic monster.

One case, out-patient, was high up; by version and extraction a living girl was born. One case required craniotomy; in another, forceps were used with dead child. The other two cases in hospital were normal, both children being born alive.

Brow Presentation. One case, in hospital. The pelvis was large and child small, so birth took place normally and child was born alive.

Transverse Presentations. Four in hospital, nineteen outside. 1 in 62. Of these, nineteen of the infants were second twins. In one case, where the child was so jammed down into the pelvis that I could not manage version, I did embryotomy and, the perforator slipping, I had the misfortune to rupture the uterus, and lost the mother. In one case, a small dead child, I found spontaneous evolution going on, and only had to give a little assistance.

Twins. In hospital 10, outside 10. One case in 74.

Of those in hospital, in each case the twins were of the same sex, and had one placenta, one chorion, two amnions.

In 5 cases—both children were vertex.
,, 1 case—one was vertex, one was footling.
,, 1 ,, one was vertex, one transverse.
,, 2 cases—both were breech.
,, 1 case—one was footling, one breech.

Outside, in 9 cases the difficulty was with the second twin, one woman having been waiting for 36 hours with the first child not tied off, the second being a transverse presentation. Three were footlings; in one, extraction was difficult owing to enormous distention of the abdomen. In one case craniotomy was done, child dead and large—mother very exhausted. Two were forceps cases. Three, version for transverse presentation; one was a case of locked twins, primipara, the first child born as far as the head when I arrived. The second bag of membranes was quite low, and, on rupturing, the head of the second child was felt low down, and making a brave attempt to pass the first. I think it would have succeeded, as both children were small, pains good, and pelvis roomy, but as the mother was tired, I did not leave things to nature, but got some one to raise the body of the first child
out of the way and put on forceps, extracting a living boy, asphyxiated, but he revived and I left him crying vigorously.

**Triplets.**—One case in hospital. All girls, 1 placenta, 1 chorion, 3 amniotic sacs. Two children dead, one living. One of the dead children was hydrocephalic, and the living girl developed hydrocephalus before removal from hospital.

**INTERCURRENT ILLNESSES COMPLICATING PREGNANCY.**

*Ague*, very frequent and, even if controlled before labour, a very general cause of after-temperatures.

*Typhoid* twice, one case fatal, haemorrhage from the bowel occurring shortly before the birth of the child. The other case did well, but the child, given to a wet nurse, died in a week.

*Anaemia* frequent, often due to ague.

*Phthisis*, several cases, all did better than expected. One died shortly after going home.

*Dysentery*, three cases, severe, recovery in all.

*Cystitis*, two cases, both recovered.

*Syphilis*, with actual venereal sores, three or four, but many with histories of the taint, and record of children lost. All mothers did well, but four per cent. of the children were either still-born or died within a few days of birth. When the mother has come in early enough to allow of long enough treatment with mercury, we have generally been able to save the children.

*Albuminuria*. 2%. I have found potassium acetate by far the best treatment, combined with dieting. We have had three cases only of eclampsia, none of them severe; all began after the birth. In the worst case there were eight fits followed by deep unconsciousness. All the patients recovered.

*Heart disease*, two cases, one recovered, one died; both children were still-born.

*Asthma*, one case. We had to use forceps, as the strain of labour was too great; both mother and child did well.

*Confluent Smallpox*, one case at seventh month. Mother did well, went to term, and had living boy.

**COMPLICATIONS OF LABOUR.**

*Precipitate Labour* has occurred six times. In three cases the child was born on the floor; in one, while the mother was sitting on the commode. All the mothers and children did well.
Retained Placenta, twelve cases. Four cases were in the hospital, the placenta in each case being firmly adherent. Three were removed successfully. The fourth case occurred in the hospital here while I was in Foochow during the revolution. The nurses were unable to remove the placenta, and the patient was taken home and died of haemorrhage and sepsis. This case to my mind affords a strong argument for the thorough training of Chinese nurses. Up till then I had not taught them anything but the management of normal cases, and I now realized that I had not treated them fairly by leaving them, without the possibility of getting other help, to face difficulties for which they had not been prepared.

Outside I have had eight cases of retained placenta. In the last four, the placenta was removed by senior nurses under supervision.

Placenta Previa.—Two cases, both partial. In one case, vertex. I dilated, turned and delivered a living boy. The mother collapsed badly, but recovered.

The other was delivered by forceps, child dead and the mother had severe post-partum haemorrhage but recovered.

Lacerations of the Perineum. Including all the cases, primiparae and multiparae, normal and abnormal, lacerations occurred in 6 per cent. Among the primiparae only, lacerations occurred in 15% of the cases. It usually happened with nurses who were learning to take primiparae; rarely with senior nurses. We stitch before the placenta comes away, and healing usually takes place by first intention.

In 4 cases, difficult instrumental labours, laceration was to anus. All healed well, though two of the cases had to be stitched twice; control of sphincter was complete.

Fibroid Tumour of Cervix, one case, birth normal, woman went out refusing operation for removal.

Prolapse of Bladder, one case, the bladder presenting at the vulva like a sausage-shaped bag of membrane; a catheter proved what it was, and after emptying it was easy to replace and birth was normal.

Polypoid Tumour, one case, the tumour being attached to cervix and anterior vaginal wall, with partial hernia of bladder. The bladder was returned and child being very small, labour was normal.

Atresia of Vagina, three cases, all the results of native interference in a previous labour. In one case the vagina would only admit the tip of one finger. In all cases treatment was the same: first, digital dilatation, with tampons in between whiles; then the insertion of a watch-spring pessary. When labour commenced, it was allowed to go
on as far as possible normally, and when head was down on the atresia, incisions were made laterally. In one case, the baby, weighing only 4 lb., came through without further assistance. In the other two, extraction was by forceps and difficult.

*Tumours of Groin and Vagina*, one case, outside. The tumours were about the size of a large egg, very hard, one in the right groin close to the vulva, the other just inside the vagina on the left side. The woman lived in the country. She had been ill a long while, both legs were enormously swollen, and she was quite unable to lie down. The position and hardness of the tumours made it impossible to deliver either by instruments or by doing version; even the perforator could not get at the head, the tumours deviating the point. The woman could not be moved to hospital, nor, if she had been, could Cæsarian section have been performed in her condition, so I had to leave her. I believe she died within a few hours.

*Hydramnios.* Twice, in hospital, both plural births. In one case there were premature twin boys, non-viable. In the other, triplet girls, two dead, one living; one of the dead children was hydrocephalic, and the living girl developed hydrocephalus before leaving hospital.

*Prolapse of Cord.* 8 cases in hospital, 1 outside. 1 in 164.

,, 3, vertex, we did version, with 2 living children.
,, 2, footlings, both children saved.
,, 1 case, breech, the os contracted round the child's neck, and it was still-born.

One of the versions was interesting; presentation was vertex, high up, labour slow; on putting in the second blade of forceps, cord prolapsed, pulseless. I took off forceps, did version and extraction, and the child, though badly asphyxiated, was saved.

*Rupture of Uterus.* Two cases, both outside. One my doing, the perforator slipping while performing embryotomy.

In the other case I found the rupture when examining, how or when done I do not know. Both cases fatal.

*Incarcerated Pregnant Uterus*, three cases. In two of these the fundus was retroverted, cervix pressing on the urethra. Replaced easily by steady upward pressure with woman in knee-elbow position. In the third case the fundus was anteverted, cervix high up and to the back, and replacement was very difficult.

In two cases the women went to term, and came in for confinement which was normal with living children. In the third case,
uterus down over ten days, the foetus, five months, was dead, and, as abortion did not take place naturally, I induced it and removed a female foetus evidently dead some time.

**OBSTETRIC OPERATIONS.**

*Use of Forceps.* 90 cases in the hospital, 84 outside.

Of these, 4 cases were high forceps, for pelvic deformity. 50 of the 90 were among the first 400 cases in hospital, the last 880 only recording 40. Most of these in early days were for occipito-posterior unrotated, and, as I have said before, we now generally rectify this position.

Cases other than occipito-posterior presentation and uterine inertia have been:

- Pelvic deformity
- Emergency
- Placenta praevia
- Prolapse of cord
- Heart-weakness
- Atresia of vagina
- Hydrocephalus
- Asthma
- Face presentation
- Difficulty with after-coming head
- Polypoid tumour

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<td>Emergency</td>
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<td>Face presentation</td>
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<td>Difficulty with after-coming head</td>
<td>2</td>
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<tr>
<td>Polypoid tumour hindering labour</td>
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*Craniotomy.* In hospital, 1 case. Outside, 9. 1 in 140. The hospital case was for after-coming head in a primipara.

*Embryotomy.* One case, outside. The perforator slipped and ruptured uterus, mother died.

*Version.* In hospital 5 cases, outside 21, about 2%. In hospital the cases requiring version were:

1. Placenta praevia, mother and child did well.
2. Prolapsed cord, vertex high up, mother and child well.
4. Transverse presentations, arm presenting, both mothers did well, one child was still-born.

Of those outside the hospital there were:

1. Cases, in which the hand presented.
2. Cases in which version was performed, after failing with high forceps; one child saved.
3. Case in which embryotomy had been done by midwife.
In one case the mother had died just before I arrived. I did version in hopes of saving the child. It gave one faint gasp, but I could not revive it.

Anaesthetics. I very rarely give chloroform for any obstetrical operations. I find the women bear them well, and as here they have a great dread of anaesthetics, I have only in very exceptional cases found their administration necessary.

Treatment during Puerperium. As regards the puerperium my experience is that Chinese women recover quicker than English women. It may be that Chinese women during this period are treated more rationally. Here, unless there has been post-partum haemorrhage or a laceration, or a specially exhausting labour, the woman is allowed to sit up as soon as she likes, and to get up to go to the bathroom; otherwise, we keep her in bed as far as possible for the first five days. Mist. Barnes is given, but no binder is worn, and the involution of the uterus is quick and normal, the red lochia changing to yellow sooner than with an English woman. Temperature and pulse are generally normal. In a few cases there has been a rise of temperature on the third day, passing off as the milk flow is established.

During the puerperium we use plenty of native absorbent paper, which is changed when soiled. Temperature and pulse are taken twice a day for ten days. The woman is kept in bed for the first five days but she is allowed to sit up and to go to the bathroom which opens off the ward. A primipara must stay 15 days in the hospital, a multipara 10 days, after the birth of her child. Mist. Barnes is given as long as the lochia is red.

In women with a malarial history there has often been a relapse, with sometimes very high temperature, but very little general disturbance, milk, lochia, and general functions continuing normal; quinine rapidly cures. Where there have been bad lacerations of the perineum or difficult instrumental labours, there has been sometimes high temperature for a few days.

DISEASES OF PUERPERIUM.

Septicæmia. True sepsis we have only had in cases brought in which were badly mis-handled beforehand by native midwives. In each of these, six in all, the vagina and vulva were gangrenous. Four died in hospital, and two were taken out dying.

Phlegmasia alba dolens, one case, recovery.
Breast abscess, three cases.
Post-partum haæmorrhage, eight cases, all recovered.
Secondary post-partum haemorrhage, two cases, both recovered. I find compression of the aorta effectual when all other measures have failed.

Maternal Deaths.—We have had 1,291 cases in the hospital with 8 maternal deaths. Of these, three were emergency cases, brought in after two or more days' labour, all badly torn by midwives, death being due in each case to gangrene of vagina and septicemia.

One was from a house where we afterwards heard there was plague; she died on the fifth day of very suspicious symptoms. One was dying of typhoid; she had a severe haemorrhage from the bowel just before the birth of the child, and died three hours after.

One came in very ill; the child was born prematurely and only lived a few hours; her husband brought her very bad home news the next day, and the shock of this, on top of her disappointment with the baby, proved too much for her in her weak state of health, and she just sank and died.

Two patients died of heart failure. One, quite unexpectedly, after a quick labour lasting only two hours altogether. There was no haemorrhage, uterus contracted normally, and I could find no reason for the fatal collapse. The other had been in some years previously, difficult forceps, with severe collapse due to weak heart. I had warned her of the danger of another labour, so I was not surprised when, after a difficult breech extraction, she again collapsed, and this time fatally.

THE CHILDREN.

To the 1,482 mothers collectively, there were born 1,504 children. Of the mothers, 1,461 gave birth to one child; twenty gave birth to twins, and one to triplets. The average weight of the children was 6½ lbs. The smallest living and reared weighed 3½ lbs; the largest, 10 lbs.

Still births were about 3%, including premature and emergency cases.

Abnormal children: There were four monsters, all born in the hospital. One in 376. Three were anencephalic, the cranial vault being represented only by a thick membrane. One had deformed feet. Two presented by vertex (?). One by face. In all there was difficulty in extracting the shoulders. One lived for about two hours, making the weirdest sounds, more like the croaking of a bull-frog than anything human. The other was mal-formed, with face, eyes, and mouth only partially developed.
Other abnormalities were: Hydrocephalus, 2 cases. Congenital absence of anus, one case, in which the rectum was about 2½ inches up and blind; the child died. Misplacement of heart to right one case; the child only lived half an hour. Hare-lip and cleft palate, one case.

*Birth injuries*: Fracture of humerus, one case, united well. Paralysis of face after forceps, several cases, all recovered completely except one. Cephalhæmatoma, several cases; all the children recovered but one, which developed acute hydrocephalus and died.

*Child mortality*, about 3%, the chief cause of death being congenital syphilis. Other causes have been injury from forceps; acute hydrocephalus; cephalhæmatoma; uncontrollable haæorrhage from cord, 2 cases, both premature boys; jaundice; melæna neonatorum; atelecstasy, and one case of anuria.

*General Care of Baby*. Our routine practice is as follows: immediately the head is born, eyes and mouth are wiped with a soft, dry sterilised rag. If there is any reason to suspect gonorrhæal infection of the vagina, a lotion of hydrarg. perchloride is dropped into the child’s eyes. After separation, the baby is weighed, washed, and dressed in hospital clothes. Every day for a fortnight it is washed by the nurse, eyes and mouth being washed with lot. boracic morning and evening. After the 14th day, if the mother still stays in hospital, she is supposed to wash the child herself under the nurse’s supervision.

**DISEASES AFFECTING NEW-BORN CHILDREN.**

*Congenital Syphilis*, very common. I treat by hydrarg. cum cret. in small doses, adding cod liver oil by mouth or inunction if child very weakly.

*Convulsions*. Our routine treatment is first of all, to keep the child absolutely quiet and in the dark, not even lifting it for feeding, the mother either lying down beside it, or else milk being given by a dropper. For medicine I give chloral gr. iii. at once, and afterward 2-3 grains in water administered during the course of 24 hours, a few drops at a time. This I continue for several days, gradually lessening the strength of the chloral as the fits abate. If the child is cold, hot water bottles are placed in the bed. Since I have adopted this treatment we rarely lose a child from convulsions.

*Thrush*. Since our nurses have been properly trained, we have not had a case for the past four to five years.

*Ophthalmia Neonatorum*, 12 cases, under 1%. Nine quite recovered before leaving. Three went out before they were quite well,
but in each case the worst was over, and the child able to open the eyes. In one case only was there some opacity of the cornea, but the pupil was only slightly invaded.

Our treatment now is argyrol 10%-20% dropped into the eye, every two hours at first. This is painless, and most effective; if used soon enough it will cut the disease short in a wonderful way. Should the argyrol not prove sufficient, we douche the eye with lot. boracic, as hot as the child can stand it. Internally, we push hydrarg. cum cret., and occasionally inunct with mercury.

Albuminuria. We have had one or two cases where, for no reason that we could find out, the child (always a boy) passed very little water for several days after birth, and what it did pass was almost solid with albumen. We find that, in such cases, hot bottles and blankets around the child is the best treatment, keeping it absolutely quiet, not lifting it even for feeding. For drugs, sp. aeth. nit. in drop doses.

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HORSE-FLIES AND ANTHRAX.


During last summer two cases of cutaneous anthrax came under my notice. They were of interest because the question of direct inoculation by the bite of the horse-fly was involved.

The first case was a man named Lu, aged 52, a blacksmith, who lived about 70 li [里] from Harbin. On July 26th, 1915, he said he was stung by a horse-fly in the neck just under the chin. Next morning he found he had a swelling one inch in diameter under the chin. On the top of this swelling there was an irregular scab, and round this there were vesicles containing clear fluid in which B. Anthrax was demonstrsted. The swelling was excised in toto, the wound was partially sutured, and the patient made a good recovery. Though this man was a blacksmith he never had anything to do with horses.

The other case came from Fuchinshen, a place some hundreds of li down the Sungari River. A farm, financed by Chinese and American capital, is situated there with fifty horses and a number of workmen. This summer, 1915, seven horses have died as the result of being bitten by horse-flies. In each case twenty-four hours after the bite, a swelling of the size of a man's fist appeared at the site and the horse died. Last year the flies bit several men, causing local swelling and
pain, but with no fatal results. This year two men have been bitten and died. They were bitten on the face, and in twenty-four hours there appeared a local swelling; then the men appeared very ill, the cellular tissue of the neck became swollen, and they died in three days.

Of special interest is the case of the third man who was bitten above the right ear on July 18th, 1915. He was ill on the 19th, with swelling of the neck. He was brought by boat on the way to Harbin for treatment, but he died on the 21st before he arrived. On the 22nd the corpse was brought to the hospital for us to make a post-mortem examination, as those concerned were anxious to find out the cause of death. The workmen, too, were getting nervous.

Post-mortem Examination. The body was that of a big and strong-looking man. No observable mark was seen at the site of the bite, i.e., above the right ear. But there was much swelling, and petechiae were seen on the right side of the face, the neck, and the chest.

Abdomen. Some clear serum was seen in the peritoneum. The spleen was enlarged, dark, and fluid. Microscopically, it was found afterwards to be haemorrhagic and filled with B. Anthrax. The liver and kidneys appeared normal, though under the microscope there were haemorrhages and bacilli.

Chest. Haemorrhages were seen in the right pectoral muscles. Clear serum was found in the pleura. The heart and lungs appeared normal. There was some emphysema in the mediastinum. The blood found in the heart and the great vessels was tarry. Slide smears and inoculations on agar were made from the blood, and both showed the anthrax bacilli.

Neck. There was much oedema on the right side of the neck. A gland removed from the angle of the jaw on the right side was haemorrhagic and microscopically full of bacilli. On the left side of the neck, glands were found to be enlarged but not haemorrhagic. There was no oedema of the glottis.

The inoculations made on agar tubes showed typical growths of B. Anthrax. Microscopically, large spore-bearing gram-positive bacilli were seen. From a broth culture a loopful of broth was injected into a guinea pig subcutaneously by Dr. Wu Lien Teh. It died within thirty hours with all the signs of septicæmia. From the guinea pig B. Anthrax was again recovered. The inference is that horse-flies spread the disease among horses by directly transferring the bacilli from one animal to another by their bites. Conceivably, also, they bite living horses suffering from anthrax or feed on diseased carcasses, and then
soon after bite man, thus carrying the bacilli from horse to man, and causing the malignant pustule. We had no opportunity of conducting experiments, however, to prove or disprove these points.

As prophylactic measures, we advised the people at the farm to bury all dead horses, to cover the living horses with nets to protect them from the flies, and to wash the horses daily with a weak solution of creolin. I have been told there has been no incidence of anthrax among the workmen since.

The horse-flies sent to us for identification from the farm measured about \( \frac{3}{4} \) inch from head to tail, and were black in colour with large patches of yellow on the sides. As a tentative attempt I classify them as follows: **Family, Tabanidae:** **Sub-family, Tabaninae:** **Genus, Hamatopota.**

At the time the above observations were made, so far as I was aware, 110 experiments had been made proving that any of the Tabinidae were agents in the propagation of anthrax or other human disease, though such agency was considered probable. Thus Alcock (*Entomology for Medical Officers*), states that the Tabinidae, "though they attack man freely, do not, at any rate in most places, afflict them grievously as they do domestic animals, nor do they come much into dwelling houses, nor are they known to transmit the infection of any specific disease to man, though they have been known to transmit the *surra* trypanosome in India, and other pathogenic trypanosomes of domestic animals in Africa. The possibility of their infective agency in the case of man should, however, be always borne in mind."

Since writing the above, my notice has been drawn to notes published in the *American Journal of Tropical Diseases and Preventive Medicine* (Vol. 2, No. 4) where M. Bruin Mitzman is reported to have made successful experiments in the mechanical transmission of anthrax by means of *Stomoxys Calcitrans* and *Tabanus Striatus*. These species were made to feed on an infected guinea pig shortly before its death from anthrax and were then immediately transferred to healthy animals. By these means positive infection was produced. It was found that the greatest interval between the infective feed and the bite of the healthy host in which transmission was successful was 20 minutes. While such forced experiments do not necessarily prove that in the free state the disease is actually transmitted in this manner, yet the presumption that it is so transmitted is very strong. The cases here described should go far to place the matter beyond doubt.
THE VALUE OF MONONUCLEAR COUNTS IN THE DIAGNOSIS OF SUB-TERTIAN FEVER.*

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In the entire realm of tropical medicine, there is nothing so common and yet so baffling as sub-tertian malarial fever. Common, because it forms the bulk of fever cases during every season of the year and succumbs so readily to the use of quinine; and baffling, because it assumes so many pernicious forms, complicates so many diseases, and in these cases tries our wits to the utmost in our endeavor to bring it under control. Especially in the exigencies of a missionary's work is one's patience fairly worn out because one has so little time to spare and so little trained help to enable one to make a quick diagnosis. The problem becomes greater when the case does not come to our attention until after the administration of quinine, and this I have found to be true in a great many instances. Once the drug has been ingested, it is hardly ever possible to find the parasites in the peripheral circulation. Here is where our blood counts become of value.

We know that authorities such as Manson, Castellani, and Daniels assure us that mononuclear leucocytes are always increased 5%-10% above the normal in malaria, but in actual practice I believe that we seldom ever take the trouble to make differential blood counts. So a few points are given here because I have found them helpful, and would like to get further light as to whether differential counts of mononuclear leucocytes are of value or not in the diagnosis of sub-tertian fever.

Taking sub-tertian fever in its commonest form such as we meet with daily in our dispensaries, are we apt to find difficulty in the treatment of such cases? As for myself, last year I had over 21,000 visits to the dispensary, and all the trained help I had was a trained nurse from Soochow. She looked after the surgical department, which totalled one third of our cases, while I looked after the remaining medical cases. This left me absolutely no time in the mornings to make blood examinations of my dispensary patients. The case I now quote is typical of scores of my patients.

Case A.—A baby boy two years old. He came in the early part of November. Had been ill for three or four days and was getting steadily worse. Had physical and clinical signs of acute bronchitis but not in a severe form. The temperature seemed to be the worst feature—over 104° F. I prescribed some calomel and quinine,

* A paper read before the Kuling Medical Association, August, 1915.
Mononuclear Counts in Sub-tertian Fever.

and a little camphorated oil to be rubbed on the chest, and told his mother to bring him again in case he was not better. The next day they requested me to see the baby in his home since he was no better, but apparently worse. I found on examination that while the fever was slightly better and the lung symptoms were no worse, still, he was nauseated and threw up the quinine and his milk quite frequently. The house that he lived in was a large dilapidated kung kwan, damp in the extreme, and the room was an inner one that did not have proper windows so that it was kept muggy as well as damp, and there were a great many mosquitoes flying about in spite of the lateness of the season. I took some blood films, ordered the child to be moved into a larger and better ventilated room, and then gave them a solution of quinine bihydrochloride of the same strength as previously administered, but told them to give the drug before he nursed and if he vomited to repeat the dose. They were to continue the drug until they heard from me again. Then I went home and made a differential count. I found fully 30% of large mononuclear leucocytes, so merely sent word that they were not to miss a single dose of quinine. The next day they sent for me again and I found the child much better. The temperature had dropped over two degrees and he was not nauseated nearly so much. I continued the treatment and in two or three days he was entirely well.

In this case the mononuclear count alone decided my treatment and gave me peace of mind, for if the lung trouble had been responsible for the temperature there should have been a rise of polymorphonuclear leucocytes instead of the mononuclear increase.

Case B.—The above-mentioned baby's cousin, twelve years of age, also became ill in the summer and gave an example likewise typical of many cases. He had a temperature of over 105° F., and had been ill for a week. Though he had taken 30 grains of quinine during the previous 24 hours, the next afternoon they brought him with his temperature not diminished in the least, and he was apparently more frail than ever and could take no nourishment. The clinical symptoms did not point to typhoid in the least, but I took some blood films and ordered his mother to give him a little egg-albumin water every hour. Then I gave him five-grain tabloids of quinine bihydrochloride to be taken every four hours, and told them to keep up the treatment until the next day. The blood examination showed an enormous increase in the large mononuclears so I felt pretty safe. The next afternoon when he was carried in he could sit up and the temperature was more than one degree lower. Gradually the temperature crept down but it was a full week before it reached normal. Had I not made the blood count I would have been tempted to think the drug was not helping him and that he might have typhoid.

Nearly all our hospital fever patients get a blood examination as soon as they come in, and it is only by so doing that we can give them prompt relief.

Case C.—This patient was an only son whose brother died from a fever lasting over a month. He was a fairly healthy baby one year old. Had had fever for two weeks and had been treated by a Western-trained doctor who gave him quinine in fair doses, but it had upset his stomach, and he had reached the stage where he could take neither medicine nor milk but lay simply exhausted, panting for breath. Blood examination revealed fully 30% of mononuclears, so intramuscular injections of quinine were begun and he made a prompt recovery. Ever since then he has made frequent visits to the hospital, and so well has he responded to treatment each time that his grandmother declared that he belonged to the hospital. The explanation was quite simple. Since he always had quinine before he came,
if a blood count showed no mononuclear increase, he was simply given a mild cathartic and a restricted diet. If an increase was discovered, quinine was given in full doses so that he has fared well and is now over two years old. No amount of persuasion, however, can make his parents give him a proper diet so he still gets his attacks of fever every few months.

Still, by experience I have found that unless the increase of mononuclears is fully 20%, a lesser rise need not necessarily bespeak an origin due to sub-tertian fever.

CASE D.—This case is a good illustration of the above observation. The patient, a girl two years old, had a bad attack of mumps. Repeated examination of her throat had shown no trouble, but when her temperature persisted after the swelling had nearly subsided it was thought that she might have malaria as a complication. Quinine was given but no result obtained. Then the blood examination was made and a slight mononuclear increase of 17% was noted. One injection of quinine was given, then a throat examination luckily revealed diphtheria of a severe grade which fortunately, however, yielded to antitoxin. Since then I have been chary of considering any increase less than 20% as of great value in diagnosing sub-tertian fever.

As a means of discovering complications in other diseases I think that blood counts cannot be overestimated. Recently I have had a striking example of this.

CASE E.—The patient was a nurse in the hospital. She was 28 years old, of not very strong physique. In April last she had a sudden attack of severe appendicitis. I was ill at the time, but Dr. Vaughan kindly attended her. All our urging could not persuade her to consent to an operation, so we had to let the disease take its course. When I got up ten days later Dr. Griscomb came and again urged an operation, but to no avail. Six weeks later the appendical abscess ruptured through her right lung and at that time she nearly died. At first her temperature had reached over 103° F. and afterwards it did drop much lower, but hovered over 101° F. or over 100° F., with once in a great while a drop to a little lower. It was remittent in type from the first. Two blood counts had been made in the beginning showing a leucocytosis, an increase in the polymorphonuclears, and only 12% of large mononuclears. Still, quinine had been given for over a week in the hope of lessening the fever, but it seemed to have no effect and was discontinued. With the free discharge of pus there was still no drop in the fever, so during the end of the seventh week two-grain doses of quinine were administered at intervals of four or five hours. Barely three doses had been given when the girl had tremors with marked signs of collapse, and the drug was discontinued. But as the fever again reached 103° F., towards the end of the eighth week I started quinine again at six-hour intervals, taking the precaution, however, to give her more strychnine and digitalis to keep up her strength. After she had taken three doses I felt that we had reached a critical stage. If the fever was of septic origin only, was it necessary for me to give the quinine? On the other hand, might not the fever have been due also to something else, as apparently the tumor had subsided and certainly there could not have been much more pus behind? Then the thought came—Why not make another blood count? The result was 20% of large mononuclears. In face of the fact that several weeks ago it was only 12%, I felt justified in administering the fourth dose. What was the outcome? In 24 hours the temperature had touched normal, a thing which it had not done for about two months, and it hovered over 99° F. or a little more for a few days until the atmosphere became cooler, when it fell to normal again and remained so. All this despite the fact that the discharge of pus remained about the same.
But it is when sub-tertian fever is of the pernicious form or takes a pernicious turn that our blood counts become of the greatest value.

CASE F.—This was a woman in our employ. She was 46 years of age and had often had malaria. Last spring she caught cold and had what she thought was malaria, so dosed herself with quinine for three or four days with no effect. When I saw her she had a temperature of over 103°F. and much bone aching, so I ordered 30 grains of quinine hydrochloride daily. For four or five days she kept the medicine up, but it lowered the temperature only one degree and she became quite nauseated. I ordered more cathartics and the quinine kept up, but when the temperature reached 101°F. it apparently could not go any lower, and her vomiting had reached such a stage that she could take scarcely anything. The vomiting seemed to be chiefly nervous in character and not bilious, and she became so erratic mentally that the nurses all thought she was out of her mind. I now started quinine by intramuscular injection. For two days she took no food but kept a nurse standing by her day and night so that she might be given water to hold in her mouth in order to assuage her thirst and lessen her vomiting, so she said. The fever would not go below 100°F. in spite of the 30 grains of quinine injected daily, so I hastily made a blood count, found over 30% of mononuclears, and immediately injected 8 grains of quinine bihydrochloride. Four hours later I repeated the dose and the temperature dropped to normal. What was more to the point her vomiting ceased at once also, and she demanded a bowl of gruel and bean-curd which I let her have, and she kept down both without difficulty.

But the type which misleads one the ofteneest is the pneumonic, and I am constantly on the alert for fear that I may be caught, and yet to err in the other way is just as bad.

CASE G.—This patient was 35 years old, a foreigner, and himself a physician. In May, 1913, I was called to see him in consultation with another physician. He had a slight bronchitis for several days when he suddenly developed a chill and a temperature of over 105°F. The physical and clinical symptoms were very much like those of lobar pneumonia, but in addition he had severe bilious vomiting with some blood in it, and the prostration was great. When I arrived I found the case had been diagnosed as one of pneumonia. I demurred a bit at the diagnosis, for with the gravity of the other symptoms there was not enough dyspnoea and pain on the affected side of the chest, so I started to make a blood examination. An injection of quinine had already been made so I could only make a blood count. I found over 30% of large mononuclears so I told them that I thought the case was probably one of sub-tertian fever taking a pneumonic form. It was agreed that I should do the night nursing because the other physician was not free for it, and during the night I injected 5 grains of quinine every four hours with the result that by morning the temperature had reached normal and the other symptoms had cleared up a great deal.

But I am often misled myself, for there is nothing so perplexing as the pernicious forms of malaria.

CASE H.—This case may be given as an example. The patient was three years old, a plump child, though crippled from a bad attack of infantile paralysis. Last year, in May, for two nights she had fever and her mother, who was one of our nurses, thought she had malaria and gave her 2 grains of quinine every two hours in the day-time. On the third night when the fever went up, it did not leave in the morning, and she became so ill that her mother called me up at four o'clock. I
found that she had marked dyspnoea and cyanosis with a temperature of over 103°F. She coughed a lot, and the sputum was very thick, tenacious, and tinged with blood. The physical signs were similar to those of pneumonia and I had no alternative, apparently, but to give a diagnosis of pneumonia, and told the mother there was very little chance for the child to pull through. I applied a hot anti-pliogistine plaster over her chest and back and replaced it before it had a chance to get cold. Still, having been taught to be wary by my former experiences, I told the mother to keep up the quinine every two hours during the night. Greatly to our surprise, by the next morning her temperature was normal and all her other symptoms had abated in severity. In addition, amblyopia had developed, so I dropped the quinine but told the mother that I would give it again in case the temperature showed signs of returning. Then I made a blood count and found over 30% of mononuclears. Accordingly, when 24 hours later the temperature started to return again, I resumed the doses of quinine at three-hour intervals. Meanwhile the amblyopia had cleared up and she made a good recovery.

After this case I decided never to give a diagnosis of pneumonia without making a blood examination first. In some of our epidemics of sub-tertian malaria, the congestion of the lungs has been so great that hemorrhages have taken place and the children have been brought for treatment of the hæmoptysis. These children were often fat and healthy and the blood examination alone helped me in giving the right treatment to them. Without this prompt treatment many of them would have died.

Of course in basing our diagnosis on an increase of the mononuclears, we must remember that there are other diseases in which there is also an increase, notably in trypanosomiasis and Kala-azar. But trypanosomiasis has not been discovered here yet, and Kala-azar is more apt to be chronic. In the latter disease leucopenia is much more marked and there is a slight lymphocytosis as well.

Therefore, taking sub-tertian fever as a whole, and particularly in certain forms such as the pneumonic and gastro-intestinal, I think that undoubtedly great value can be placed upon a blood count of the mononuclears in order to enable us to arrive at a correct diagnosis of the disease.

Educational Institutions in China. According to the report of the Ministry of Education, China has at present 11 universities, 21 colleges, 7 technical schools, 3 medical colleges, 415 normal schools, 502 middle schools, 50,071 primary schools, 965 half-day schools, 85 military medical schools, 298 girls' schools, 82 industrial schools, 49 law schools, and 72 schools established by foreigners.—North-China Daily News.
THE TERM "MALARIA" AND ITS COLLOQUIAL SYNONYMS.

By William Malcolm, M.D., Chiaotso, Hunan.

Heaven, personified or deified in many places in China, is regarded as a Being not to be loved, but, on the contrary, very much to be feared as the avenger of evil-doers. Heaven sends rain upon the just, but not upon the unjust. There is a well-established belief in many parts of China that malaria is sent by Heaven as a scourge, but it is sent especially to those who make light of the affliction, or who are so thoughtless as to mention the name of the disease in a careless way. The intermittent nature of the fever lends force to this theory. Sometimes the fearful shivering ghoul finally departs, but that boon is evidently not reserved for those who irreverently bandy about the sacred name of this mysterious disease. Having got rid of one attack, the patient, in fear of incurring Heaven's disfavour and bringing on another spell, is most careful not to mention even the name of this dread scourge. In case of necessity he dignifies it by the respectful name of 大老爺 Ta lao yeh, "The Honorable Official," for do not they both alike make men fear and shiver?

But even this precaution does not always prevent a recurrence. In many cases in our general practice, it has been with difficulty that we were able to induce the patient to mention the disease, even by its most honorable name, under the mysterious spell of which he might be at that moment suffering either the shivering agonies of one naked in a temperature below zero, or the alternative parching heat of the tropics while clad in winter clothes.

To day a man came into the hospital in the very height of a severe malarial paroxysm, but when asked for what illness he came to be treated he refused to answer, but sat down and waited for a friend. When the friend came, he was asked the same question. Instead of explaining that the patient was suffering from malaria, in a most furtive way, and without uttering a single word, he pointed towards heaven, and by this almost imperceptible gesture we knew at once his whole story. To the novice in Chinese practice it might seem a far cry between the silent upturned finger and a diagnosis of malaria fever, but to the initiated, the heavenward pointing index is eloquent with meaning.

The belief that malaria is none other than a heaven-sent disease is most firmly grounded in the minds of many Chinese. I have had a
patient take me by the sleeve and lead me into an adjoining room, to
tell me confidentially, and in a whisper, that Heaven had at last found
him out and had visited upon him this scourge.

Another patient, also constrained by fear, instead of mentioning
the name ague when asked what he complained of, cautiously,
but with great seriousness, pointed through the window at a particular spot
in the western sky, which action I had learned by experience to know
meant that when the sun should reach that place his next chill would
be due.

It naturally strikes these simple-minded country people (I speak
from my experience in Kiangsu and Honan Provinces) as most un­
reasonable and ridiculous that such a fantastic disease could possibly be
attributable to the agency of the festive mosquito, and not be explained
by the more dignified theory of heavenly retribution. Consequently,
it is most difficult to carry out hygienic and prophylactic measures
such as drainage, segregation, and the like. For about a year I tried
to get a drain cleaned out which led from my front gate past the houses
of several neighbours to a nearby canal, but without avail. When the
mosquito theory was mentioned as an urgent reason for having the
drain repaired, they looked at me in a compassionate and indulgent
sort of way, indicating by their actions, if not by so many words—
"These foreigners may have some good ideas. For example, they
seem to know a good country to live in when they see it and they
may know considerable about surgery; but when it comes to internal
medicine, the cause and prevention of malaria and other internal
diseases, it is plain to see that much learning hath made them mad."

A glance at the following various local synonyms for malaria will
throw light upon the fact that the natives regard it as a heavenly
scourge.

Malaria.

**Names:**

(1) 前署子 Fa Yao Tze.
(2) 前署 Yie Tze.
(3) 前署 Yok Chi.

**Synonyms:**

(1) 天上 那个 T'ien shang, na koa.—"That heavenly thing."
(2) 那个东西 Na koa tung hsi.—"That thing."
(3) 那 嗬 Na ma shu.—"That fixed entity."
(4) 那话面 Na hwa t'ou.—"That what you call it."
(5) 打摆子 Ta pei tze.—"The repeating burden." (Pendulum-like.)
(6) 周日子 Chien jih tze.—"The alternating days."
(7) 天天 T'ien t'ien.—"Every day" Quotidian fever.
(8) 三天—面 a. San jih tze.—"Three days."
   1. a. San t'ien i hui.—"Once in three days."
   2. a. Tertian fever.
The name by which malaria is probably most commonly known in North Honan is "Kan-lao-chien," a phrase meaning "Drive the old bull." Its origin is obscure, but the explanation given me a few days ago by a countryman who came to the hospital for malaria treatment is not an unlikely one. He said that the usual native treatment for this disease is as follows:—The patient cuts the shape of a bull out of a piece of paper, then he ties a copper cash to the paper bull's tail, after which he takes it to the nearest temple, shrine, or cross-roads. There he prays the disease into the paper bull, after which he sets fire to the paper, leaving only the cash, and whoever is unfortunate enough to pick up the cash (it might even be his own child) catches his sickness and carries it off.

The existence of such names for malaria, as Fang-niu [放牛], meaning "To herd cattle," which is frequently used in this district, and Kai-wa-wu [蓋瓦屋], meaning "Build a tile-roof house,"* so often heard in Shantung Province, seems to be without rhyme or reason.

*A Chinese medical student thinks this expression owes its origin to the placing of one covering after another upon the patient during the cold stage of the disease, a procedure suggestive to those who adopted the term of a workman placing the overlapping tiles on the roof a Chinese house.—Ed.

**What may we expect in China?** In Japan, 471,877 women and children are employed in factories. Of these, 22 per cent are under 14 years old. Many work 15 hours a day, in unhealthful conditions. The rate of mortality among them is three times the normal. The government, the Christian Church, and non-Christian committees are all attempting to change these startling conditions. Agencies are being started for work among orphans, lepers, discharged prisoners, and consumptives. The Conference of Federated Missions is collecting facts and statistics of social conditions and recommends the development of settlements in congested centers.
UNDULANT AND PARATYPHOID FEVERS IN FUKIEN PROVINCE.*

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

Both of these fevers occur in the province of Fukien, though their incidence is as yet a matter for investigation. The first is distinctly rare, and, with the exception of the case given below, I have never been completely satisfied with the diagnosis. With regard to the second, in this district where typhoid fever is endemic, for some time past there have been cropping up obscure cases, especially among the troops to the north of Yungchun, which have been characterized, speaking generally, by a typhoid state, in which the condition of the tongue, the course of the temperature, and the course of the disease were unlike that of typhoid fever.

I. Undulant or Malta Fever.

The case mentioned was that of my own cook, a young man of 26, who was under my care from first to last. He came to me one afternoon complaining of having had a shivering fit, and stated that he had been unwell and without appetite for some days. His temperature was 101° F. A dose of quinine was administered, and a blood smear taken. This smear contained no parasites, and appeared normal. Next morning the temperature was apparently normal, but was not taken. He resumed his work, but in the afternoon was cold and shivery, and by evening the temperature was up to 101.4° F. Next morning the temperature was 100.5° F. He then left his work and from that time forward was on his back for six weeks. He ran a temperature varying from 100.5° F. to 104° F. for sixteen days. It then fell to about normal for three days, then rose again for twelve days, was down to normal for a couple of days, then up again for seven days. After this date it was practically normal.

The spleen was enlarged and a little tender, but the patient had not the dull look of a typhoid case, and repeated search failed to find any spots. The abdomen was not distended, nor tender except over the spleen, the tongue was heavily coated, anorexia was marked, and there was occasional diarrhoea. Bronchial symptoms were marked, but there was no apparent consolidation of the lungs. The sputum was frothy, and the patient complained of cough. No tubercle bacilli were found in the sputum. Sweating, especially during the day, was a prominent symptom, and sudamina appeared. The odour of the sweat was offensive.

* A paper read before the Fukien Branch of the C.M.M.A., August, 1915.
patient complained bitterly of pain in the back, and also of frontal headache. About the tenth day, he had a sharp attack of pain in the right knee, with effusion. After a day or two this went away of itself. The left shoulder was attacked in the same way a few days later but the acute pain and synovitis soon disappeared, though the patient complained of the joints for some weeks. The disease left him extremely weak. It was three months before he was again fit for work, and not quite strong for a further three months.

The blood was carefully tested. The report was that Widal's reaction for typhoid and paratyphoid fever was negative, but there was a definite reaction with Micrococcus melitensis.

It is now two and a half years since this illness, and the man has kept perfectly well. Treatment resolved itself into the treatment of symptoms only, as for some weeks I was in doubt as to the nature of the illness. Three other cases have been seen by the writer which were probably of this nature, but they could not be followed throughout, and no examination of the blood was made.

II. Paratyphoid fever.

CASE A. A soldier, aged 22, was admitted to the Yungchun Hospital on December 8th, 1914. He had been ill a fortnight, and looked dazed and wretched. His temperature was 100° F. on admission, and varied between this and subnormal till within a week of his death, when it rose to 101°-102° F. and became continuous until the end.

There was no malarial infection. The tongue was slightly furred, the spleen just palpable but not tender, there was slight distension of the abdomen, and a tendency to diarrhoea, two or three loose stools daily with a little mucus which contained a fair number of Entamoeba histolytica. Under emetine treatment these rapidly disappeared, and with them the mucus, otherwise the character of the stools remained the same. The patient was most difficult to manage, lying in a semi-dazed condition, and passing his stools and urine under him.

On two occasions for 48 hours he was decidedly better, but on the second of these occasions he left his bed, got a fresh chill, and possibly also some indigestible food. The diarrhoea was better, and we had hopes of his recovery. Diarrhoea began again however; he developed bed-sores with great rapidity, and his death was probably, partially at least, due to septicaemia. He died on the 13th of January, and for the last week it had been practically impossible to keep him dry and clean. He complained of no abdominal pain or tenderness from first to last, and blood was never seen in the stools.
CASE B. On the 16th of January another soldier, aged 29, was admitted to the hospital, also in a dazed condition. Twenty days before, he had begun to suffer from pain in the abdomen and slight fever. His bowels had not been moved for seven days.

His blood contained malignant tertian rings which cleared up quickly under quinine by mouth and intramuscular injection.

His bowels were opened by a saline, and from that time to the end of his illness he had a daily stool practically normal. The stool contained a few ova of *Trichocephalus dispar*.

But the patient's general condition did not improve. He lay in bed on his back in what might be called a typical typhoid state. He could be roused and would answer questions, and then would relapse into the same condition, keeping up a low moan for most of the day and night. The tongue was slightly furred, and in no way typical of typhoid fever. After a week in hospital it cleaned and remained clean. He had slight bronchial catarrh, otherwise there was nothing abnormal found on examination of the chest. The spleen was palpable three fingers-breadth below the ribs and was slightly tender. The abdomen was slightly distended, and in the right iliac region there was more distension. This quadrant of the abdomen moved less, was tender to the touch, and evidently there was some local peritoneal inflammation. There was nothing abnormal to be felt per rectum, but he complained of pain during the act of micturition. The urine was acid, s.g. 1010, no albumen or sugar present. No spots could be found on the body. A few days after admission he suddenly complained of intense pain in the left shoulder joint, and would not allow it to be moved. After painting it with liniment of iodine, the pain gradually disappeared and in 48 hours was entirely gone.

The swelling in the right iliac quadrant varied, sometimes better, sometimes worse, and several times the writer was sorely tempted to explore. But there was no marked leucocytosis and the blood report was as follows:

<table>
<thead>
<tr>
<th>R.B.C.</th>
<th>3,200,000 ...</th>
<th>Diff. leucocyte count.</th>
<th>Polymorphs</th>
<th>69 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>W.B.C.</td>
<td>8,000</td>
<td>Mononuclears</td>
<td>17 %</td>
<td></td>
</tr>
<tr>
<td>Hæmoglobin.</td>
<td>50 %</td>
<td>Lymphocytes</td>
<td>13 %</td>
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<tr>
<td></td>
<td></td>
<td>Eosinophiles</td>
<td>1 %</td>
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As time went on the swelling began to subside, and by the end of February there was no sign of it.

After three weeks in hospital, the patient was seized with pain over the gall-bladder. For a few days there was definite resistance to be felt, and the abdominal movement over this area was restricted. But it
Vincent's Angina.

J. F. Lee, M.D. Assistant Pathologist, Canton Hospital.

Pseudo-membranous angina caused by Vincent's organism is a relatively rare disease, although it has mild infectious tendencies.

The spirillum and fusiform bacillus were described by Plant and Vincent some twenty years ago. Since then numerous cases of the constant association of these organisms with throat lesions have been reported. The fact that not a few cases escape detection by general practitioners may be responsible for its apparent rarity. This disease attacks both sexes and no age is exempt.

The onset may be accompanied by slight elevation of temperature, which gradually subsides in a few days. Pain is not a constant symptom. It may be slight or absent according to the location and course of the invasion. Coughing, hoarseness, and irritation of the throat usually occur, but constitutional symptoms are entirely absent in most cases. In the acute form the lesion is usually confined to the faucial tonsils, which are covered by a grayish membrane adherent to
the underlying tissues. The inflamed area gradually extends downward to the pharynx, and is soon followed by necrosis and sloughing. Without appropriate treatment the lesion becomes chronic and is attended by extensive and deep ulceration.

According to Bruce there are two types clinically: (1) The diphtheritic type which is unilateral, superficial, limited in extent and with no swelling or injection of the fauces. It shows slight fever at the onset. Glandular swelling is not marked. The slough gradually drops off, revealing an ulcer which quickly heals. (2) The ulceromembranous type. In this condition the lesion spreads rapidly, and covers an extensive and deeper area. Suppuration occurs in ten to fourteen days. A portion of the tonsil may be destroyed and replaced by granulation tissue, which bleeds readily and heals slowly. Glandular involvement occurs without suppuration.

The cases I observed in America were usually obstinate, despite various forms of treatment; recurrences were not infrequent, at which times there were apt to be mixed infections. This disease may be treated by local application of 10% solution of silver nitrate, or 25% argyrol, twice daily, and by spraying the throat frequently during the day with mild antiseptic solutions to protect the healthy structures. Tincture of iodine is also useful.

In the chronic form supportive treatment is indicated. Surgical interference by excision of the ulcerated area has been employed in selected cases with good results.

Technic of bacteriological examination:—Secure a smear with a cotton swab, dry and fix as usual. When cooled, apply weak aqueous solution of fuchsin, or Ziehl's carbol-fuchsin diluted with two parts of distilled water; stain for one minute, wash and dry, and examine with the oil immersion objective.

These organisms also stain readily with an aqueous solution of gentian violet. It has been claimed by many observers that the organisms decolorize by Gram's method and stain by alkaline methylene blue. In my experience with this method, the spirilla are so faintly stained that they are hardly visible. Both organisms are motile, and can readily be seen in the hanging drop slide. They are accepted as anaerobic. Cultivation has been attempted without success. The diameter of the spirillum is ½ of a micron. It is 10 to 16 microns in length. The curves are irregular. The diameter of the fusiform bacillus is ½ of a micron and its length is 8 to 10 microns. It is pointed at both ends. They are usually found in chains or clusters.
Appendicitis.

APPENDICITIS.*

W. B. RUSSELL, B.S., M.I.D., Soochow, China.

In 1827, L. Mellier described appendicitis and said: "If it were possible to establish with certainty the diagnosis of this affection we could see the possibility of curing the patient by operation. We shall, perhaps, some day arrive at this result." To-day we know his words were prophetic, for the knowledge of the symptoms has become so general in America that typical appendicitis is often diagnosed before the doctor sees the patient. But I fear that even the medical profession does not realize the enormous number of people who have had appendicitis. Toft recorded 500 autopsies and in 36 per cent there were positive signs of past attacks of appendicitis. Taking into consideration the results of recent research, especially in helminthiasis, etc., it seems hardly reasonable that the percentage of appendicitis should be less in the Chinese.

Time does not permit us to discuss the many names, as typhlitis, peri-typhlitis, para-typhlitis, inguinal abscess, etc., under which appendicitis has masqueraded. These are to-day no longer recognized as pathological entities. Appendiceal colic, however, deserves a word, for it is a term for appendicitis, when there is no peritoneal involvement, that has been responsible for much injurious delay and conservatism. When the surgeon operates in some of these so-called "appendiceal colic" cases and finds a gangrenous appendix, thereafter he must consider any case of appendicitis, or, if you please, "appendiceal colic" as warranting serious attention. Just as Dr. W. J. Mayo has demonstrated "innocent gall stones" to be a myth, so likewise "innocent appendiceal colic" is coming to be recognized, at least by our best surgeons, as no less mythical.

Appendicitis is rare in infancy and is seldom seen in extreme old age, but neither sex nor any age is exempt. It is more frequent in the male, and especially in the young male adult, than in the female, perhaps mainly on account of blood supply, but partially no doubt, due to habits of life. In the male the appendix gets its blood supply from the appendiceal branch of the superior mesenteric artery, while in the female it usually gets an additional branch from the ovarian through the appendiculo-ovarian ligament. However, in any case while the

* A paper read at the Biennial Conference of the C.M.M.A., held in Shanghai, February, 1915.
cause may be looked for in some infecting organism, as staphylococcus, streptococcus, colon bacillus, etc., the anatomy of the diverticulum itself is a predisposing factor. The delicate veins of the appendix, devoid of valves as they are, rupture easily when the organ becomes actively congested; and the appendix, with the meso-appendix, is so freely movable that the possibility of a kink with interference in the circulation to the extent that rapid gangrene may occur, is easily appreciated by the surgeon, although we grant that the affection is most often due to some extension to the diverticulum from a catarrhal or other diseased condition of the caecum.

There are certain symptoms which, when combined, enable us to diagnose appendicitis with certainty. These symptoms, and especially the order in which they occur as pointed out by Dr. J. B. Murphy of Chicago, are pain, nausea or vomiting, local tenderness with muscular rigidity, and pyrexia. The pain is always worse about three to six hours after the onset of the disease, somewhat colicky in character, and at first is nearly always referred to the epigastrium. It is usually associated with a flatulent condition of the caecum and ascending colon. The pain usually subsides and becomes localized at the appendix in whatever position or situation that may be, usually at McBurney's point. The nausea or vomiting that occurs early is due to distention of the appendix, and resembles that due to hepatic or renal colic; but if it occurs late it is due to peritonitis and is therefore a symptom of serious import. The tenderness, at first more or less diffuse, with perhaps slight rigidity, later becomes confined to the region of the appendix, with increased muscular rigidity. Pyrexia is always present at some time during an attack of appendicitis, but sometimes it is very slight and, coming on soon after the onset of the attack and then disappearing, may pass unobserved. The temperature is rarely very high and when the inflammation is subsiding returns to the normal by lysis in one, two, three, or four days. In case of crisis in the fall of the temperature, with an accelerated pulse, suspect gangrene or rupture of the appendix. In cases where there is doubt, or where from any cause you may think any of the above symptoms masked, always make a leucocyte count to confirm your diagnosis. The chronic case that may present itself as chronic indigestion, or other vague trouble in the right side, is not so easily diagnosed, but a history of an acute attack will usually be forthcoming which helps in clearing up the case. In some of these chronic right-sided cases, however, you will be led to suspect gall-bladder trouble, or chronic pyloric ulcer together with trouble in the appendix, and with the very best diagnostic skill find
Appendicitis.

diagnosis impossible without exploratory operation. In these cases all we can conscientiously do is to diagnose the case as surgical.

The rational treatment of appendicitis is surgical. To attempt to treat the disease with drugs is futile, as in this way you can only treat the symptoms, and by so doing may mask the cardinal symptoms in such a way as to render diagnosis impossible. In some cases, as we have shown, it is very difficult to diagnose appendicitis, even when no opiates or other drugs have been given, but when the diagnosis has been established definitely there is but one treatment—that is by operation. Our operative procedure should be governed by the conditions present, but with due conservatism we should always remove the appendix, of course always avoiding undue traumatism to the tissues and the breaking up of adhesions that may allow infection to spread to the general peritoneal cavity. Adequate drainage should be introduced in all pus cases where the peritoneum has been soiled, and should usually be left in from four to six days. In cases where the general condition of the patient precludes a general anaesthetic, spinal analgesia with novocaine, etc., or local anaesthesia with H. M. C. may be employed. Having been with Dr. Ochsner in Chicago, we might be expected to have some hesitancy as to immediate operation, especially during the dangerous period so ably marked out by him, but our experience so far has taught us that careful handling of the tissues at operation, followed by Fowler's position and the continuous normal saline proctoclysis, known as the Murphy drip enema, warrant our insistence upon immediate operation in these cases also. The surgeon who delays operation will have serious cause for regret with some of his cases.

We will take your time, now, to refer to one case of our recent series in America. Jackson, Tennessee, T. B., male, aged 17, worked Monday, March 30th, 1914, and started to his work (awning maker) Tuesday, but felt a little bad with some colicky pains in his abdomen, followed by nausea. His mother told me on my inquiry that he had a slight rise of temperature Tuesday afternoon, detected by her thermometer. She gave broken doses of calomel which was followed by movement of the bowels. The mother called me on Wednesday afternoon, April 1st, to see this patient's little brother, who was ill with pneumonia, when she remarked that her oldest son was complaining, so I asked to see him while there. His temperature then registered normal, with pulse 90, and he expressed himself as feeling very well and as not having been "much sick." There was slight tenderness just below and to the outer side of McBurney's point but no mass and he could straighten and flex the right leg without pain. Rectal examination proved negative. I told the mother I suspected appendicitis but would see him again in a few hours. At seven p.m. my colleague, Dr. John A. Blackmon, saw him in consultation with me and confirmed my diagnosis. Permission to operate was granted so ambulance was summoned and we operated at nine p.m. At operation we found the appendix in position indicated by the tenderness, but kinked upon itself and gangrenous right down to the caecum. Appendix was removed by purse-
The China Medical Journal.

string operation and drainage tube introduced down to the caecum. Patient made an uneventful recovery and several weeks afterward when I saw him he expressed himself as not having felt so well in six months.

Next, in pursuance of the demand of the Conference for reports of Chinese clinical cases, not having data at hand of my own work formerly done while in charge of the Methodist Hospitals of Nanking and Wuhu respectively, I am glad to be able to call your attention to a few cases from the Soochow Hospital file of charts, of work done by Dr. John A. Snell.

**Case No. 1.** Zau, farmer, entered hospital August 30th, 1913. History of pain all over abdomen for eight days previous to operation. He had been given 50 c.c. of castor oil. On entrance, temperature registered 101° F. A large mass was evident in appendiceal region which was very tender on slight pressure. At operation, same day of entrance, incision over center of mass gave exit to a large amount of foul-smelling pus and necrotic material, a piece of which was taken for the sloughed off appendix. Cavity was packed with iodoform gauze. Fecal examination showed eggs of ascaris lumbricoides and schistosoma japonicum. Santonin was given. Foul discharge continued for a few days, but patient had a satisfactory convalescence and left hospital September 13th, cured.

**Case No. 2.** Tali, aged 7, farmer's son. For five years had suffered with severe pain on urination on account of which had cried a great deal. Examination showed right inguinal hernia the size of a goose egg and easily reducible. Sound showed bladder stone which was felt clearly on rectal examination. As the little fellow was in poor condition for operation, Crile's anoc-association was used at operation. Chloroform 1/2 oz. was used as general anaesthetic, with quinine and urea hydrochloride locally. Fecal examination showed ascaris lumbricoides in abundance, so santonin given before operation had good result. At operation the hernia was taken first; during the process, the appendix, five inches long, appeared in hernial incision. Removed easily by ordinary purse-string operation; after removal, was found to contain three pieces of round-worm. A stone weighing 45 grains was removed from bladder suprapubically after hernia had been completed. After operation patient had very little shock and almost no pain. Temperature went to 100° F. once, but recovery was uneventful.

**Case No. 3.** Xyi, aged 17, student in Soochow government school, entered hospital March 2nd, 1914, with history of a severe attack a year ago of pain in the abdomen. From this he recovered in about two months, but had abdominal pain more or less for the entire year previous to entrance. One month prior to entering hospital he had another acute attack of severe abdominal pain and fever, with a tender mass in right iliac fossa. Had improved during the month. Temperature registered normal on entering, but patient presented a distinct mass, very tender on pressure, in right iliac fossa. His walk showed a limp in right leg. Fecal examination showed ascaris lumbricoides in abundance and santonin was given previous to the operation with good results. Operation, March 6th, 1914. Usual incision; omentum strongly adherent to appendix. Adhesions broken up and tied where necessary. The appendix, which presented a scar where it had doubtless ruptured in first attack, was removed from mass of adhesions with great difficulty. The operation was completed by usual purse-string operation. Cigarette drain was introduced in closure and left in 48 hours. Recovery was uneventful. Temperature reached 99.4° F. once. Patient left hospital 18 days after operation, having been kept in a few days longer than usual on account of his general bad condition.
CASE No. 4. Kwen, aged 18, student Episcopal Mission Academy, Soochow. Four days before entering hospital was taken with severe pain in abdomen that gradually became localized at appendiceal region. On day before entrance he was given a dose of castor oil after which pain became less, but localized at right iliac region. Fever was present from beginning of attack. Examination night before entering hospital shewed marked tenderness over appendiceal region together with a distinct mass. Patient gave a history of a similar attack three years previous to this one. Operation by Drs. Hiltner and Snell, September 28th, 1914. Temp. 99.2°. Incision was made directly over mass. Appendix very long; its end was bound down with adhesions and twisted in middle; base cut, cauterized with carbolic acid and closed with purse-string suture. Wound closed without drain. Examination of appendix after removal showed a fecal concretion, also a small abscess just ready to rupture near distal end. Convalescence: on fifth day a small abscess ruptured in line of closure and discharged pus. However, it proved to be superficial and it closed by tenth day. Patient was discharged from hospital on March 24th, cured.

CASE No. 5. Tung, teacher, well-to-do family in Soochow. Dr. Snell was called to see patient several times in his home. Operation was frequently urged, the diagnosis of appendicitis having been made in spring before entering hospital, but was refused. At time of entering hospital patient had marked indigestion, with more or less constant abdominal pain, and gave a history of having suffered in this way for the past several months, his symptoms becoming more marked at intervals. Examination at this time, September 20th, 1913, showed marked tenderness in right iliac region, but no mass, and no abnormal temperature. However, he was confined to his bed as an invalid at this time. One year previous had spit blood and had been given a diagnosis of pulmonary tuberculosis. On entrance examination of feces and sputum negative, but he had a suspicious focus in one lung. Urine: Sp. Gr. 1010; color, bright yellow; albumin and sugar negative. The operation was performed on September 25th. During the intervening time there occurred a family quarrel while patient was having an acute exacerbation of his symptoms. Chloroform anaesthesia, usual incision, appendix size of little finger, badly inflamed and indurated, with glands enlarged but no adhesions. Usual purse-string operation done. Convalescence was uneventful and patient showed marked improvement in his general health. In June, 1914, however, pulmonary tuberculosis was diagnosed by Dr. Snell as the bacilli were found in his sputum. Patient had had no further abdominal symptoms up to that date.

CASE No. 6. Ch'ang, aged 29, entered hospital August 27th, 1912, having been seen five days before in clinic with severe pain over region of appendix, and fever. Castor oil was prescribed. Day before entering hospital was better, so took food which caused severe pain. On entering, temperature registered 100.6° F., pain severe. Oil given with some improvement in symptoms. Feces, negative. White blood corpuscles 16,000; differential count was not recorded. Operation, September 3rd. Appendix badly inflamed and enlarged; was removed by usual purse-string procedure. On eighth day after operation patient was jaundiced which cleared up with calomel; otherwise convalescence was uneventful and patient left hospital on seventeenth day after operation, cured.

CASE No. 7. Zau, aged 33, opium smoker, gave history of an attack of severe pain in abdomen two and one-half months before entering hospital, August 23rd, 1913, when he presented a mass in the appendiceal region, very tender on pressure, which was diagnosed as an appendiceal abscess. Temperature was then 99.4° F. Fecal examination after operation showed ascaris lumbricoides. Operation same day patient entered hospital; one inch incision directly over mass set free a large amount of foul-smelling pus, well walled off from general peritoneal cavity.
Abscess cavity was wiped out and packed with iodoform gauze. Anti-opium treatment was given immediately after operation and patient was dismissed September 14th, cured.

Case No. 8. Sih, aged 29, entered from clinic with diagnosis of tubercular sinus which had been treated with tr. of iodine with no improvement. History of trouble began one and one-half years before entering hospital with pain in right side of abdomen and inability to extend right leg. Two months before entering hospital an abscess ruptured in middle of right lumbar region and had discharged pus ever since. Pain much better after rupture of abscess. Feces showed ova of ankylostoma duodenale and of ascaris lumbricoides. Operation for sinus, June 27th, 1914; curetted and packed with iodoform gauze, but as sinus extended downward into the right iliac fossa Dr. Snell was so deeply impressed that source of trouble was abdominal, the patient was turned over and abdomen opened over appendiceal region. Remains of appendix consisted of a stump one and one-half inches long bound down posteriorly; glands were enlarged. The condition convinced Dr. Snell that patient's trouble had originated in the appendix. Convalescence was satisfactory, patient going home July 22nd, cured.

Before closing, I desire to thank Dr. Snell for allowing me to report these Chinese cases, and I wish to say that he did not see my reports as he was out of the city at the time I copied them.

In conclusion we urge: (1) that careful observation and analysis of all cases of abdominal pain be made, including previous history, and that all opiates and other drugs that may mask the symptoms be withheld, at least until a diagnosis can be made; (2) that when a definite diagnosis of appendicitis is made, immediate operation be insisted upon; (3) that at operation the appendix be always removed, if possible, with due conservatism in the handling of the tissues and the breaking up of adhesions that might, if left alone, prevent infection spreading to the general peritoneal cavity; (4) that with failure of diagnosis, exploratory operation with right rectus incision as used in the Mayo Clinic, be seriously considered in all indefinite chronic cases of right-sided abdominal trouble; and (5) that careful after-treatment, with the patient in Fowler's position and the continuous normal saline proctoclysis, be strictly followed.

The Ochsner Treatment of Appendicitis. E. S. Hicks (Canadian Med. Assoc. Journal, September, 1915), who recently visited the Ochsner Clinic in Chicago, states that of 200 consecutive cases of appendicitis without a death, 64 were not treated surgically during the acute attack. Operation was performed on 136. Of these, 49 were acute cases, operated on as soon as they came under observation; 12 were suppurative cases, of which 8 had an abscess drained only, and four had both abscess drainage and removal of appendix; while 84 were of the chronic type, or were operated on after the acute attack. All patients seen in the first 48 hours were operated on at once if willing; a few underwent operation on the third day, but cases from the fourth to the ninth days, especially if very ill, were treated medically and operation delayed until a safer time.

All communications on Editorial Matters, Articles, Letters, Exchanges, and Books for Review should be addressed to the Editor of the JOURNAL.

Changes of address, departures and arrivals of members of the Association should be notified to the Business Manager, Mr. A. W. Hayward, 9 Woosung Road, Shanghai. Members are requested to invite all missionary physicians who come to China and other parts of the East to join the Association.

The yearly subscription to the China Medical Missionary Association is $4Mex., payable in January of each year. This includes the JOURNAL and postage on it, whether local or foreign.

Editorial.

THE NATIONAL MEDICAL ASSOCIATION OF CHINA.

During the Conference of the China Medical Missionary Association in Shanghai last year, the attending Chinese members deemed the time was ripe for the formation of a medical association in which the regular and associate members should be Chinese doctors exclusively, thus making it truly national. Accordingly, the "National Medical Association of China" was organized. Already it has nearly three hundred members drawn from all parts of the country. This Association has just held in Shanghai its first Conference. From every point of view, professionally and socially, it was a great success. The members and their friends, Chinese and foreign, responsible for the varied programme and arrangements, are to be heartily congratulated, and thanks are due to the local Press for its extended and kindly notices of the Conference. A condensed report of the proceedings will appear in our next issue, and it is hoped that some of the papers read will appear in this JOURNAL.

Such a representative gathering of Chinese physicians, many of whom have received their education in mission medical schools, cannot but give profound satisfaction to all medical missionaries, for they sincerely and unselfishly desire to see the day when China can stand alone, and efficient, in all matters affecting the health and general welfare of the people. The nucleus has now been formed of a Chinese medical profession, trained in the art and science of Western medicine and surgery, and determining to adopt the ethical standards of the profession in other lands. Of this we
have an assurance in the following words of the first President of the Association, Dr. F. C. Yen, of the Hunan-Yale Mission, Changsha:

"We represent the first generation of medical practitioners, so what we do will probably be imitated by those who are to join us in the future. Not only must we be honest and ethical ourselves, but we must act as sentinels to guard against quacks and frauds coming in to contaminate our profession. It is only by observing the highest medical ethics ourselves and in preventing corruption from contaminating the profession from without, that the dignity and honour of our noble profession may be protected and raised to the highest standard."

Of course, much steady and faithful work must yet be done to enable the Association to struggle against and survive the perils of its infancy, and to maintain its high ideals. But it is full of hope and enthusiasm; it has the good wishes of all sincerely interested in the welfare of China; it can count on the loyal co-operation in every way possible of our own older Association; the work of the China Medical Board of the Rockefeller Foundation will be a source of great strength to it, and if the Chinese Government will do its part, there should be no anxiety concerning the future of this Association now marching so bravely forward.

THE RED CROSS SOCIETY IN CHINA.

In the preceding number of the Journal an outline was given of the preparations which the Red Cross Society in China should undertake, as soon as possible, for the care of the sick and wounded in the event of foreign wars or domestic revolutions. But this need not exhaust the beneficent activities of an enterprising and energetic society. To secure the hearty co-operation of all classes of the Chinese people, they must be informed of all that concerns the Society,—its organization, its object, its different activities, and the moral principles for which it stands. Even in Western countries we are inclined to think that many of the alleged violations of the respect and immunity which should be granted to all forms of Red Cross work are due either to ignorance or accident. Certainly this excuse can be legitimately made for some of the
unfortunate incidents which occurred during recent Chinese revolutions. No long time has elapsed since China entered the comity of nations and her people cannot be expected to conform immediately in the usages of war to the high humanitarian standard of Genevan conventions. Instruction of the people is necessary, and owing to peculiar conditions in China this must be more elementary, and at the same time more thorough, than is ordinarily required in Western lands.

In the first place, the name of the Society in itself conveys little to the Chinese mind. While it is true that the heraldic emblem of a Red Cross on a white ground, formed by reversing the Swiss Federal colors, was adopted as a compliment to Switzerland where the Red Cross movement originated, yet the symbol of the cross to the minds of all Christian people has the most sacred associations and they feel that it hallowed, or should hallow, all that is done under it. In China it has no such sacred meaning for the great mass of the people, who simply regard it as the arithmetical sign for the numeral ten. The literal translation of the name of the Society, 赤十字會, is "The Red Ten Character Society," which is not very illuminating. Perhaps it would be going too far to ask that the principles of Christianity should be taught as an essential part of this educational propaganda. To do so might tend to limit a movement—which should have the support of all religions—to the adherents of the Christian religion only. But in explaining the emblem and principles of the Society it is hardly possible to avoid reference to the pity and self-sacrifice for others which has made the cross so sacred a symbol to the hearts of Christian people.

Further, the Chinese must be taught the full meaning of the word "neutrality," especially in its application to Red Cross work. Originally, in their own language, they had no such term, therefore it would seem the conception itself was wanting. The term now in use, 聲立 (tsung li), was passed on to them by the Japanese. What it really means may be known to Chinese scholars, but the common people and soldiery are ignorant. In the Revolution of 1911, the ambulance corps of the Imperial army conceived their duty was simply to remove from the field of battle the dead and wounded of their own side only, and they wanted to treat their
wounded enemies, not as prisoners of war, but as "revolutionaries" with all that such a designation meant as used by them. Indeed, there is little doubt they gave the coup de grâce to many of their wounded opponents left lying on the field. On the other hand, it was reported that the country people who were in sympathy with the revolutionaries killed many of the wounded northern soldiers. On each side, soldiers of the ambulance corps carried arms, and many of them took part in the actual fighting. Strange to say, on the revolutionary side was a society called the Kan Sz Tei (敢死隊), "The Dare Death Company," consisting of men pledged to fight to the death for their cause, who wore a red cross as their distinguishing badge. In the hospitals, emissaries of one side came to bribe or otherwise tamper with the wounded of their opponents. A Red Cross contingent from the north, because their badges had been stamped by the Imperial side as required by the Geneva Convention rules, were regarded as spies by the revolutionists. As probably happens in all wars, there also seemed to be occasional violations of the respect due to the Red Cross flag itself, and the institutions over which it was raised. Nearly all of these occurrences may be charitably put down to ignorance, a fact which gives strong support to our plea for an educational work among the soldiery.

Another difficulty is created by the very wide scope of the work of certain Red Cross Societies, particularly in America. The original purpose of the Red Cross Society was simply to succor the sick and wounded of armies actually in conflict. The widening of its work so as to include various peaceful and benevolent enterprises, ranging from nursing the poor in country districts to the construction of dykes for the prevention of inundations, is a confusing departure from the original plan. With reason it was urged that civilian enterprises should be carried on under a cross of a different color. Sooner or later a change was inevitable, so we learn with no surprise that within the past few months the American Red Cross Society has been reorganised. There are now two distinct, separate departments, the civilian and the military. Whether the civilian department will continue to use the Red Cross emblem the reports do not state. If it does, it will hardly be in accord with the spirit of the rules of the Genevan Convention.
The principal objection to such usage is that it affords cover to the work of societies that have no right whatever to use the Red Cross and to lay claim to its valuable privileges. For instance, among the Chinese there are benevolent societies which do much good in relieving the necessities of their poor members, giving decent burial to the dead, etc., but which mainly exist for mutual protection in times of danger. The adoption by these societies in 1911 of the Red Cross emblem, which they placed on the doors of houses in which there were no sick or wounded, is hardly to be wondered at, yet certainly should not be permitted. Article XXIII of the Geneva Convention expressly states that "the emblem of the Red Cross on a white ground, and the words 'Red Cross' or 'Geneva Cross' shall not be used, either in time of peace or in time of war, except to protect, or to indicate, the medical units and establishments and the personnel and the material protected by the Convention." The work of the Chinese Red Cross Society should also be separated into the same two departments, the civilian and the military, and only the military department should use the Red Cross as its insignia. Whether this be done or not, the obligations and responsibilities incurred by the official standing granted to China by the Geneva Convention, should be clearly understood and performed by the Chinese Red Cross Society.

Much of the educational work required can be done by oral instruction in connection with the practical work of the training classes. There should also be a wide circulation of the Rules of the Geneva Convention, with explanatory notes if necessary, and other literature bearing on the work of the Red Cross Society. Stories of deeds of heroism and self-sacrifice performed by doctors, nurses, and Red Cross workers, might form part of this literature. Missionary societies and branches of the Y. M. C. A. might well take an important part in diffusing this knowledge especially among the Christian Chinese. As someone has said, much religious emotion kindled in the churches runs to waste for want of ethical direction. The teaching of the parable of the Good Samaritan well illustrates, if it did not originate, the work of the Red Cross Society, so that it should not be difficult to obtain the interest and practical co-operation of all our church members.
A splendid opportunity lies before the Red Cross Society, if strongly organized and conducted strictly on the lines laid down by Genevan Conventions, to mitigate the horrors of warfare should China unhappily ever become involved in it, and to instruct the Chinese people in those principles of conduct which must eventually, when adopted by all nations, make war so hateful as so banish it completely. *

* As soon as the above article was in print, a proof copy was sent to the President of the Red Cross Society in Shanghai. About ten days later, on February 12th, there appeared in the North China Daily News, the following statement concerning the "Red Cross of China:"

NEW REGULATIONS FOR THE YUNNAN REVOLT.

With reference to the disturbances in the south-western provinces and owing to the fact that the Geneva Convention makes no provision for relief work during internal disturbances, the Central Committee of the Red Cross Society of China at Shanghai has lately passed new regulations, that is to say, to follow the same method that it adopted in 1911 and 1913 with chief concern to care for the wounded and sick loyal or disloyal to the Central Government as they may be.

The new regulations are:

1. Branch Societies must act independently subject to the instructions of the local military and civil authorities and no relief corps is allowed to proceed to the fighting zone so as to avoid any misapprehensions.

2. No organizations or individuals are allowed to use the emblem of the Red Cross and the Branch Societies are strictly prohibited from using the Red Cross insignia for any purpose other than for the relief work.

3. Branch Societies must bear in mind the word "Benevolence" as their chief aim in caring for the wounded and sick and shall make no difference whether the patients are loyal or disloyal to the Central Government.

4. Branch Societies are strictly prohibited from interfering in civil, political, or military affairs.

"EVOLUTION OF MILITARY NURSING.—" Out of much chaos, much overlapping of effort, much trial due to the useless amateur 'angel of pity' who wanted to hover round the general hospitals, there loomed out two great principles. One was that of the need for a larger, more efficient army service, in view of the enormous importance of the training of the orderlies of the Royal Army Medical Corps. The other was that if full use were to be made of the kindly, spontaneous, but often misdirected efforts of those who want to be of use, there would have to be some working plan, thought out and perfected in the calm of peaceful days to render it of practical utility in the stress and strain of a great war." The Red Cross in War.


Demonstrator:—Y. T. Chii, M.D.

Secretary and Treasurer:—Geo. G. Wilson, Esq.

Financial Statement:—The total income for the year amounted to $70,843.82, and the expenditures to $65,517.87, leaving a balance in hand of $5,325.95.

This report marks an epoch in the history of the College, for it was written on the eve of great changes in the administration and direction of the College. After careful and full consultation with the mission boards at home, it has been arranged that from July 1915 the China Medical Board of the Rockefeller Foundation assumes the financial responsibility for the work; the details and working of the plans and development of the scheme to be worked out hereafter.

The present faculty and staff of the College recognize with much satisfaction that, under the new régime, developments will be possible that the limited means of the missionary boards quite precluded; and the strongly expressed assurances of the China Medical Board to carry forward the work on the lines laid down by the missionary societies which founded the College, and who will still have an important part in providing the teachers in the coming years, fill them with thankfulness.

An efficient medical education under Christian auspices has been the aim, from the beginning, of the teaching work, as it is realized that the highest and best for China can only be accomplished if the medical profession be filled with men who do their work of service in the Spirit of Jesus Christ. All rejoice, therefore, that this ideal is still to be maintained under the new régime, and look forward with hopefulness to the realization of their ideal.
During the year covered by the report there has been a larger number of students in the College than ever before. The next graduating class numbers 17. Including 34 students in the Preparatory Department, 135 students have been receiving instruction. As 30 or 40 new students entered in September last, it looks as if in the coming year there will be at least 150 students in the College. The physical health of the present students is good, and all take part in Christian study and work.

The College sustained a heavy loss by the death of Dr. Herbert V. Wenham, and the report contains a sympathetic appreciation of his life and work.

A syllabus is given of the requirements for admission to the College, courses of study, fees and expenses, etc.

In conclusion, "the faculty record with much thankfulness the completion of another year of work and are glad to see 16 more students receive the diploma of graduates. As this group of men leaves us to take up work in many different parts of China, we feel sure that in the five or six years they have been with us, they have not only learned something of the great sciences of medicine and surgery, but incidentally they have had it associated with teachings of Jesus; and we trust in the life and example of their teachers, have learned to regard Christ, the Great Physician, in His tender ministry of the sick, as the doctor's ideal."

"The coming year, we believe, will witness a great advance in equipment and in teaching facilities, and if only the right kind of teachers are added to our staff in sufficient numbers, we are confident that the College will not only maintain the important position it has secured, but will become the leading medical college of North China, if not of the whole country."

**Report of Temple Hill Hospital, American Presbyterian Mission, Chefoo, 1914-1915.**

**Hospital Staff:**—F. Hills, M.D., General Surgery; Robert W. Dunlap, M.D., Diseases of Eye, Ear, Nose, and Throat; Miss A. Primrose, Superintendent of Nurses.

**Statistical Report:**—

<table>
<thead>
<tr>
<th>In-patients (including 9 foreigners)</th>
<th>204</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-patients—New</td>
<td>2,351</td>
</tr>
<tr>
<td>Return visits</td>
<td>7,315</td>
</tr>
<tr>
<td><strong>Total visits</strong></td>
<td>9,666</td>
</tr>
<tr>
<td>Operations in Hospital</td>
<td>148</td>
</tr>
<tr>
<td>&quot; Dispensary</td>
<td>182</td>
</tr>
<tr>
<td>Administration expenses for the year</td>
<td>$13,246.45</td>
</tr>
</tbody>
</table>
This is the first report of a well-constructed and equipped hospital. It has an ideal location, looking out over the beautiful Chefoo Harbor to the north, and an amphitheatre of high hills to the south. The water supply is from two 200' bored wells. The sewage is taken care of through a modern septic tank built to deal with 5,000 gallons a day, which it does in a very satisfactory way. The discharge from it has been found by Chinese gardeners in the vicinity a sure and convenient source of water supply for their vegetables.

"As regards the high cost per bed for maintenance, high for mission hospitals, it ought to be stated that the effort has been made, with a fair degree of success, to maintain the same standards of cleanliness and general sanitation that is obtained in a well-managed hospital at home. Also the hospital being run this year at scarcely one-half its capacity, the cost per bed is proportionately higher. We hope with an increase of hospital staff the coming year, that it will be possible to run the wards at very nearly full capacity with a proportionately small increase in operating expenses.

"While one must recognize the wonderful results obtained by medical missionaries in the past, working in surroundings but little above those of the homes from which their patients came, yet certainly the chief virtue in such work is that of necessity. We can, however, with thankfulness, bear witness to the virtues of warm, well-ventilated rooms, the putting away of filthy, infested clothing, warm baths in porcelain tubs, clean linen changed often, comfortable beds, sunny airy verandahs, good clean food, and friendly painstaking attendants. Truly, in many cases, it seems to accomplish a moral as well as physical transformation.

"We would like to say, in reply to some criticisms that have been appearing in the home periodicals as to the ridiculously low cost of hospital maintenance on the mission field, that we believe our financial statement more nearly represents the true average cost of properly maintaining a hospital bed in an institution in a northern climate than almost any thus far published. Warm rooms in winter, a plentiful supply of hot and cold water, available at all hours, a sufficient number of nurses and servants, ample laundry facilities, are all absolute essentials to the approximation of home standards of cleanliness. We doubt very much whether the most efficient hospital management could maintain a modern hospital plant in North China at a cost of less than, roughly speaking, $0.85 or $0.90 gold per bed per day."

In the next report it might be well to put the name of the city in which the hospital is located on the title page, as one has to search
for the location by carefully reading the report, and in the financial
statement to indicate the currency, whether the dollars are U. S. gold,
or Mexican.

Second Annual Report of the Hospital Department of the Harvard
Medical School of China Including the Hospital of the
Red Cross Society of China, 1914-1915.

Hospital Staff:—Hans Thue, M.D., Physician; Carl A. Hedblom, M.D., Surgeon; Albert M. Dunlap, M.D., Surgeon; Henry S. Houghton, M.D., Consulting Physician; Harold E. Eggers, M.D., Pathologist; Shen Sze-jen, M.D., House Officer; Mr. H. P. Shaw, Business Manager.

Nursing Staff:—Miss Elsa Schmidt, Superintendent of Nurses; Miss Lulu Sweet, Graduate Nurse; Miss Caroline Christman, Graduate Nurse; Pupil Nurses: Miss Winifred Mooney, Miss Nina Edelman, Miss Julia Edelman, Miss Annie Bell.

Statistical Report:—

<table>
<thead>
<tr>
<th>Category</th>
<th>Europeans</th>
<th>Asiaties</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-patients:</td>
<td>132</td>
<td>288</td>
<td>420</td>
</tr>
<tr>
<td>Surgical Operations in Hospital:</td>
<td>78</td>
<td>120</td>
<td>198</td>
</tr>
<tr>
<td>Roentgen Ray examinations</td>
<td>198</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>Dispensary Patients:</td>
<td>786</td>
<td>919</td>
<td>1,705</td>
</tr>
<tr>
<td>Eye, Ear, Nose, Throat</td>
<td>734</td>
<td></td>
<td>734</td>
</tr>
<tr>
<td>Total Administration Expenses of General Hospital, Red Cross Hospital, and Out-patient Department</td>
<td>$41,214.35</td>
<td>$10,829.83</td>
<td>$52,044.18</td>
</tr>
<tr>
<td>Total receipts from fees, charity, etc.</td>
<td></td>
<td></td>
<td>$10,829.83</td>
</tr>
<tr>
<td>Deficit</td>
<td></td>
<td></td>
<td>$30,384.52</td>
</tr>
</tbody>
</table>

This Report, which covers 130 closely printed pages, is admirably compiled and is a model of what a hospital report should be. The information given is very full and clear and is presented, whenever possible, in tabular form. An instructive synopsis is given of every case, medical and surgical, foreign and Chinese. This case method of reporting the clinical work done in a hospital, as recommended by the Committee on Standardization of Hospitals of the Clinical Congress of Surgeons of America, lays emphasis on results and this is the critical test of efficiency. The method furnishes a system of recording and reporting each year the ultimate results of a case, as obtained by the follow-up system. As elaborated by Dr. A. E. Codman, it also individualizes the special features of each case and fixes the responsibility
on the particular doctor in charge. It also renders the clinical records more accessible and more useful for all purposes.

In the surgical operations, ether was used as the routine anaesthetic and was given with success by the positive pressure insufflation method in ten cases. Spinal anaesthesia was used without complications in seven cases. No conclusion can be drawn from table showing relative amount of anaesthetic required as no determinations were made of relative body weight.

Of the 24 deaths in the hospital from various causes, 50 per cent came to autopsy. The proportion for Chinese cases is a little more than 50 per cent. It is believed that with persistence and tact in obtaining the necessary consent, and with all precautions taken to make the procedure inconspicuous, this percentage may be materially increased. This is much to be desired, as autopsies—because of the limited professional opportunities along other lines—are even more valuable in China than in the West.

These demonstrations are also of special value in teaching Chinese students the nature of disease. The third and fourth year students of the Medical School have also been given regular bedside instruction in physical diagnosis and in clinical medicine and clinical surgery. There have been in addition one or two operative clinics per week for the third and fourth year students. The students have given the anaesthetic and assisted in suitable cases. Laboratory and surgical, pathological and autopsy material have been fully utilised in their instruction. Case histories illustrating special features have been discussed in relation to pathological findings. In this way the clinical material of the hospital, both Chinese and European, has been quite fully utilised.

With regard to the training of nurses, six probationers, four Eurasians and two Europeans, were admitted for training during the year. Of the Eurasians three resigned after serving four, six, and twelve months respectively. Two gave promise of becoming efficient nurses but left to marry European men. These pupil nurses have been given regular instruction during the year in Practical Nursing by Miss Schmidt and her assistants, and in Anatomy and Physiology by members of the staff.

The training of these young women has been on a tentative basis and the results have been on the whole distinctly encouraging. A special advantage in having Eurasian nurses lies in their knowledge of both the English and Chinese languages, and in the fact that they can with propriety care for male patients which Chinese young women at
present cannot do. There seems to be no question but that in the local training of young women, Eurasians and Chinese, lies the solution of the nursing problem for China.

In the Out-patient Department, Dr. Dunlap reports that on the whole the clinic has been satisfactory. It has been a departure from the usual method of conducting clinics in China, inasmuch as patients have been divided into Medical, Surgical, and Eye, Ear, Nose and Throat cases. More careful examination and treatment has been possible, therefore, than in clinics where all patients pass through the hands of one or more physicians with no attempt at segregation of cases into classes. In order to make the clinics of still greater value, it is urged that clinics should be held daily and the visiting staff increased so that further specialization may be possible.

Many an overworked missionary doctor in the interior of China, harassed for want of colleagues, competent assistants, and adequate financial support, must sigh as he reads this Report, not exactly in envy—for he rejoices in good work done everywhere in most favorable conditions—yet wishing that he himself was equally fortunate. On the other hand, it acts as a tonic to see a deficit of $30,384.52 reported without the quiver of an eyelid, certainly without note or comment.

Second Annual Report of St. Andrew's Hospital of the American Church Mission, Wusih, for the Year ending June 30th, 1915.

Staff:—Claude M. Lee, M.D., in Charge; Y. L. Sz, M.D., Resident in Medicine; S. Z. Hyn, M.D., Resident in Surgery; Miss Annie Brown, Superintendent of Nurses; Mr. Tsung, Druggist; Rev. G. F. Mosher, Chaplain; Rev. T. M. Tsang, Chaplain.

Statistical Report:—

<table>
<thead>
<tr>
<th>Service</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out Calls</td>
<td>193</td>
</tr>
<tr>
<td>Office Patients (Mex. $1 fee)</td>
<td>559</td>
</tr>
<tr>
<td>Office Patients (20 cts. fee)</td>
<td>1,141</td>
</tr>
<tr>
<td>In-patients</td>
<td>763</td>
</tr>
<tr>
<td>Vaccinations</td>
<td>60</td>
</tr>
<tr>
<td>Operations, General Anesthesia</td>
<td>236</td>
</tr>
<tr>
<td>Local</td>
<td>70</td>
</tr>
<tr>
<td>Clinic (Out-patients)</td>
<td>18,140</td>
</tr>
<tr>
<td>Free Patients</td>
<td>360</td>
</tr>
</tbody>
</table>

Total 21,522

The year has been in many ways a very satisfactory one for the medical work in Wusih. The facilities of the hospital have been
improved by the addition of three tubercular wards, each ten by twenty feet, which get a great deal of fresh air and sunshine. More surgery has been done than ever before, the operating-room technique has been improved, and there is an increase in the variety of operations performed. There has been a gratifying gain in the number of in-patients admitted.

As the religious side of mission hospital work in China has been under discussion lately, this Report is particularly interesting as it presents the methods of Christian instruction and appeal in the hospitals of the Episcopal Church. "There are three branches of mission effort exemplified at Wusih—educational, evangelistic, and medical. The development of this tri-partite work has been under definite and distinct management, and is an excellent example of what specializing in mission work will do—as opposed to the idea of the Rev. B. A. Soandso, M.D., who ran the evangelistic work, taught school, kept a kind of hotel for Chinese sick, and trained a few helpers to be called doctors later on. Thus the worker of old; yet he it is who opened China for the world!

"The medical work supports, or aids, and is supported by the other two, and the union of the three makes what we believe to be the ideal to which other mission stations should aspire wherever the station is located in a centre large enough to warrant the three branches. For cities as large as Wusih, the Church should consider the station inadequately staffed until it has the three lines."

Following a report by the superintendent of nurses, in which she alludes to the difficulties encountered in training Chinese nurses, comes the report of the chaplain, the Rev. G. P. Mosher, who states that on its religious side the hospital ranks as one of the out-stations of the parish church, in the same way that the stations in the country do, with the rector of the parish as chaplain and a resident Chinese worker.

The Chinese worker is a priest and not a catechist. With the exception of the services that he attends in the parish church he devotes all of his time to talking with the in-patients and preaching to those who come to the dispensary, while they are waiting for the doors to open. Being near the church, the rector is able to visit the hospital more than he does the other out-stations. For the women there are two Bible-women who go almost daily to talk to those in the dispensary and to call on and make friends with the in-patients. The work is discussed regularly in the morning meeting of the church workers, and close touch is kept with all that is done.

The help given the church by the hospital has been rather remarkable. Many have been brought to a belief in Christianity, some
of them at the time they were in the hospital, others a long time afterward, and doubtless many have been favorably influenced by Christian teaching of whom there has been no report.

Another side in which the hospital is of great assistance to the church is in the treatment of those who are already Christians. Many are ill and in need of treatment, and all the members of the church staff know that they may safely urge them to go to the hospital. This treatment is not necessarily given free; it is felt on all sides that Christians should pay the same as others for what they receive unless it is known that they are too poor to do so. When the latter is the case they are either paid for from the Communion Alms of the parish, or the hospital takes them in as free patients in the same way that it does some who are not Christians at all.

Added interest is given to the whole Report by the narratives of patients who have been benefited by the medical and religious work done in the hospital.

**Customs Medical Report: Health of Wuchow.**

During the period covered by this Report—April to September, 1914,—the climatic conditions have been unusual in respect of the very high flood which raised the Fu and West rivers rapidly in the month of June. The water rose on June 20th, 1914, to the height of 72 feet, and fell on July 7th to its usual summer flood level of 60 feet. Large parts of Wuchow streets and many houses were under water; whilst in the country, fields were devastated and houses and even hamlets were quite swept away. The loss of life is unknown; the common Chinese estimate is "a thousand" for Wuchow.

These high rises of water bring both good and evil to the community. The river water is full of mud which is deposited in thick layers on the flooded lands, materially increasing the fertility of the ground. Moreover, certain parts of the town, streets, drains, etc., never get flushed out except by the rising river. Of course, as the water recedes a stinking deposit is left in the streets, but some of the accumulated filth of months must be carried away by the falling stream. On the other hand, the flood leaves a legacy of pools, which means a legacy of mosquitoes, which means the spread of the endemic malaria. The loss of life by drowning has been referred to, but the river claims other victims too. In this district, and especially in the countryside, there are constantly multitudes of people who live on the border-line of starvation, who only have a meal of rice once in two or three days, and use for their diet congee, salted vegetables, and other such non-
nutritions articles. To these the loss of any possessions, though of little intrinsic value, means further financial retrenchment, resulting of course in bad health among adults, and marasmus among children. They are thus an easy prey to disease, and a vicious circle is established.

Since the flood there has been much dysentery, both acute and subacute: foreigners and Chinese alike have been attacked. I have only seen one case of typhoid fever, in a Chinese; recovery occurred after abortion in the fourth week.

Of interest is the large amount of beriberi seen during the later three months. This disease, always endemic here, has latterly assumed epidemic proportions. The first case seen after the flood was on July 15th, but from the end of July up to the present date many cases have applied for treatment. The patients present the usual clinical syndrome, and the usual great variety in degree. Slight cases, with nothing more than a little anaesthesia and some tenderness of calves with loss of knee-jerks; serious cases, with great oedema and cardiac distress; and cases of intermediate degrees of severity have appeared. My usual treatment for these cases in hospital is, rest in bed, no rice for at least ten days, exhibition of Easton’s syrup and laxatives by the mouth, with liniments for local use. Many cases recover in a month, save for the knee-jerk, but quite a number seem only a little improved by the end of double that length of time. The severity of signs and symptoms when first seen does not afford any ground for prognosis as to the probable length of treatment required in the particular case.

The severe epidemic of plague in Hongkong and Shiuhung during the early summer did not reach Wuchow.

During the period under consideration, at the Wesleyan Hospital we have had some 1,500 new cases at our clinic. The notes are not full, but it may be of interest for comparison to remark the occurrence of some diseases, as follows:

- **Pott’s disease**... 5 cases.
- **Goitre (adenomatous)**... 2 ,,.
- **Epilepsy**... 2 ,,.
- **Vesical calculus**... 6 ,,.
- **Acute appendicitis**... 1 case: operation refused; recovery.
- **Chyluria**... 3 cases: *filarial embryos* found in all.
- **Leprosy**... 20 ,,.
- **Diphtheria**... 3 ,,.
- **Hydrocephalus**... 1 case: head measured 27½ inches in circumference.
One very typical case of *Tinea imbricala* is at present under treatment: the man contracted it when a coolie at Singapore three years ago. I have never seen the condition in Wuchow hitherto.

An attempt has been made this year to find out the incidence of intestinal helminthiasis in the neighbourhood. We have made a routine examination of faeces in all patients in the Wesleyan Hospital. (During part of the year this was not possible, owing to shortage of staff, but all results of that period have been excluded from the following figures, which therefore represent a series of unselected cases.)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Ascaris lumbricoides</th>
<th>Ankylostomum duodenale</th>
<th>Trichobothrium</th>
<th>Clonorchis sinensis</th>
<th>Taenia</th>
<th>Oxyuris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>92</td>
<td>66 (72%)</td>
<td>21 (23%)</td>
<td>40 (45%)</td>
<td>12 (14%)</td>
<td>2 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Females</td>
<td>58</td>
<td>49 (85%)</td>
<td>22 (38%)</td>
<td>29 (50%)</td>
<td>7 (12%)</td>
<td>...</td>
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</tr>
</tbody>
</table>

*Note:*—The Clonorchis does not seem to have been reported previously from this district. The small proportion of *Taenia* and *Oxyuris* corresponds with reports from other parts of China. The latter is certainly more prevalent than the table would indicate, but its habitat and habits account for its apparent rarity. We not infrequently have to treat children for this complaint. One interesting case was that of a man who presented symptoms of chronic gastritis. Faecal examination showed no ova, but *Balantidium coli* was present. Eucalyptol was given as for ankylostomiasis, and a subsequent faecal examination showed no parasites. The symptoms thereupon entirely cleared up.

B. RANDALL VICKERS, M.B., B.S.

REGULATIONS FOR DISSECTION IN CHINA*.

(Issued by Ministry of Interior, Nov. 22nd, 1913. Order No. 51. Govt. Gazette 563.)

Article I. A physician, in case of death from disease, may dissect the body and inspect the diseased part to determine (examine) the origin of the disease, but he must first obtain the consent of the relatives of the dead person and clearly inform the local magistrate before proceeding to dissection.

Art. II. The police and inspectors, in case of mysterious death, the cause and origin of which cannot be accurately ascertained without dissection, may appoint a physician to dissect said corpse.

*These regulations appeared in the China Medical Journal, Vol. xxviii, page 238, but are reprinted here for convenience of reference.—Ed.*
Regulations for Dissections in China.

Art. III. The bodies of all those meeting death by punishment or dying in prison from disease, without relatives and friends to claim their bodies, may be given by the local magistrate to a physician for dissection, to be used for the purpose of experimentation in medical science, but after dissection the body must be sewed up and buried.

Art. IV. If any are willing for the benefit of science to offer their bodies for dissection and leave word to that effect before death, they may do so, but the whole body must be sewed up and returned to his or her family after dissection.

Art. V. These regulations are in force from the day of their proclamation.

Supplementary Regulations Issued April 22nd, 1914.

Order No. 85 of the Board of Interior.

Article 1. All medical colleges and hospitals, which are proved to be in good condition by the local authorities and recognized beforehand by the Board of Education or established by the public, shall be allowed to perform dissections.

Art. 2. According to Acts No. 1 and 4 of the General Laws* this may be enforced and the medical men allowed to perform post-mortems as soon as the consent of the family is obtained. (During summer this may be done immediately after reporting to the local authorities.)

Art. 3. When the colleges and hospitals mentioned in Art. 1 of By-laws apply for any dead body from the local authorities the following rules must be observed:

i. Proper letters with official seals are needed on both sides—local authorities and the college—when dealing with any deceased criminal or deceased prisoner. Any private medical college recognized by the Board of Education may also apply in similar manner.

ii. Special certificates shall be made by the judicial authorities of the local government, and the same shall be given at the time when dead bodies are issued to the medical colleges. After examination the certificates shall be kept in the college until the end of the month when they shall be returned to the local authorities so as to enable them to preserve records. There shall be no need to send these to the prisons.

*By "General Laws," in this connection, is evidently meant the preceding "Regulations for Dissection," issued November, 1913. The whole translation should be carefully compared with the copy of the original which follows. Ed.
iii. The name, age, district, and number of the dead person shall be noted in the certificate, which shall be properly dated with official seals by the local government before the same is sent. The college receiving the corpse shall keep a copy of the name, age, date, etc., so as to facilitate examination when required.

Art. 4. A certificate of death by a qualified medical man shall first be sent to the local authorities before a post-mortem examination is allowed on certain persons, who have not died in a hospital as mentioned in Art. 4 of General Laws. After examination a report shall be submitted to the local authorities for reference.

Art. 5. With the exception of Arts. 1 and 4 of General Laws any or many parts of a dead body dissected may be retained, if such are necessary for medical demonstration. This may be done according to Art. 3 of General Laws.

Art. 6. When any or many parts have been removed from a dead body for medical demonstrations, the rest of the corpse shall, if possible, be sewed up according to Arts. 3 and 4 of General Laws. (Dead bodies mentioned in Art. 3 of General Laws which are supplied to medical colleges shall be treated in the same way.)

Art. 7. A dissected body after being sewed up shall be returned to the family if possible. If unclaimed it shall be buried by the college which has dissected the body. After the funeral, a sign shall be shown on the tomb where the deceased has been buried. (Any deceased person having no family as mentioned in Art. 3 of General Laws may be taken to a crematorium by the medical college and cremated if necessary. After burning, the ashes of the deceased shall be gathered and buried, and proper signs shown on the tomb. This shall be duly reported to the local authorities.)

Art. 8. All medical colleges shall report yearly the number of dead bodies dissected, to the police court if at Peking, and to the local authorities at other places, in order to facilitate reporting to the Board of Interior for the preservation of the records.

Art. 9. These By-laws may be revised at any time with a view to improvement.

Art. 10. These By-laws shall be enforced on date of promulgation.

Translation from *The National Medical Journal of China.*

November, 1915.
Regulations for Dissections in China,

129
第四條
依本規則第四條應行解剖之屍體如非死於病院須將醫士診斷書呈送官廳備查。

第五條
凡經解剖之屍體除第一第四兩條所載者須得該親屬之同意始得酌留標本外如

第六條
凡屍體經解剖所留作標本一部或數部外能縫合者應按照規則第三第三第四兩條所

第七條
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於掩埋處記以標識（但第三條所載收領遺骸之標識於建有火葬場處該學校所聞不需

之便利酌量變通付之火葬火化後仍將遺灰變置掩埋記以標識並呈報該管地方行政官

廳）

第八條
在內彙報各地方行政官廳轉行呈部備案

第九條
本細則自公布日施行

第十條
正文未盡事宜得隨時修正以臻完善。
Medical Progress,—Internal Medicine.

Medical and Surgical Progress

Internal Medicine.

EDWARD H. HUMÉ, M.D., CHANGSHA.

Therapeutics. Three noteworthy contributions have appeared within the last quarter which deserve mention so that the measures recommended may be adopted into our regular armamentarium.

1. The removal by Caffein of some of the distressing results of treatment with Digitalis. Barton, (Am. Jour. Med. Sci. 1915, p. 352) has shown by an extensive series of studies that the irregularities produced by digitalis in the treatment of heart-disease, the chief among them being premature contraction and heart-block, may be obviated or removed by the use of caffeine. He reports a series of seven cases in considerable detail, and made it a rule to use caffeine sodium citrate, (3 grs. 3 times a day) after stopping digitalis. His results may be stated in his own words:—"All the irregularities of the heart-beat which are brought about by digitalis tend to be removed by caffeine. Although in many cases digitalis arrhythmia will spontaneously disappear when the drug is stopped, instances arise, unfortunately too common, in which after prolonged digitalis administration the conductive system is so depressed that serious results may arise. Under these circumstances the administration of caffeine will be of service, and is therefore strongly indicated. The action appears to be due to the increase in irritability of the conduction system produced by the caffeine, which antagonises and finally overcomes the depressing effects which digitalis exerts upon the auriculo-ventricular bundle."

2. The Administration of Glucose Solution as a Prophylactic in Shock. Burnham, (Am. Jour. Med. Sci. 1915, p. 431) discusses acidosis in its relation to operative treatment and reports a series of cases in which glucose solutions were found to be of greater value than the usual alkaline treatment. His cases included inguinal hernia, appendicitis with peritonitis, and removal of ovarian cyst. His conclusion is as follows:—"Glucose solution should be given as routine after every operation in which we have reason to fear more than the ordinary amount of post-anesthetic shock; (2) it should be given as routine in every case where post-operative oral feeding may be difficult or insufficient for a considerable period after operation; (3) it should be given as an emergency measure either before or after operation for the relief of an existing or threatened acidosis."

3. Treatment of Diabetes. Joslin, (Am. Jour. Med. Sci. 1915, p. 485,) reports a study of the metabolism of several cases of diabetes made by himself and Prof. Benedict, at the Carnegie Nutrition Laboratory in Boston. To use his own language:—"It is no exaggeration to say that the advance in the actual treatment of diabetes mellitus during the twelve months just passed has been greater than in any year since Rollo's time, and it should be emphasised that this improvement in treatment comes not by chance, but as a result of patient scientific experimentation, which has been based upon the work of the foremost investigators in both laboratory and clinic. It follows experiments upon animals, and is an answer to those critics who have claimed that animal experimentation-
tion in diabetes has failed to justify itself. At the same time better and simpler technical methods for the study of the blood, urine, and respiratory exchange, as well as a new knowledge of the metabolism of diabetes, have contributed a share to this improvement. The truthfulness of the foregoing is easily shown. One year ago physicians were generally afraid to teach their patients to test their urines for sugar; to-day the physician feels himself to so much greater an extent master of the disease, that this is one of the first steps to be taken. The advantage of maintaining the urine sugar-free has been universally recognised, but all have conceded that this was impossible without danger from acidosis and inanition. Fasting and a low diet have been known, but it is only fair to give Allen the credit of seeing the therapeutic significance of inanition upon a severe case of diabetes, and to prove upon diabetic dogs that prolonged fasting would render them sugar-free, and to have the courage of his convictions and apply this principle to human diabetes. Thanks to Dr. Frederic M. Allen we no longer nurse diabetics—we treat them!

The advantages of the new treatment are many. It has made attainable the ideals of treatment—namely, a sugar-free and acid-free urine. The standards of the success of treatment are so simple that they are within reach of the patient. At one stroke the patient is delivered from medicines, patent and otherwise, sham kinds of treatment, gluten breads, and in 99 cases out of 100 of alkalis. He can now test all measures for himself. Consider the amount of time and money saved both doctor and patient in urinary tests. The hospital stay is not particularly shortened, except indirectly by the avoidance of complications, because the patient requires a more thorough education in the diet. It does simplify general hospital treatment, because so soon as a diabetic patient in an open ward shows sugar, it will generally mean that he has broken his diet, for which the automatic penalty is a fast until sugar-free. Unquestionably, complications will become less frequent, and it is possible that arteriosclerosis will less commonly occur in the long standing cases as a result of the restricted diet. As a working basis the general plan of treatment is summarised as follows:

**Fasting.** Fast until sugar-free. Drink water freely and one cup tea and one cup coffee if desired. If sugar persists after two days of fasting, add in divided portions 300 c.c. clear meat broth.

**Alcohol.** If acidosis, (diacetic acid) is present, take 0.5 c.c. alcohol per kilogram body daily until acidosis disappears. Alcohol is best given in small doses every three hours.

**Carbohydrate Tolerance.** When the twenty-four hour urine is sugar-free add 150 grams of 5 per cent. vegetables, and continue to add 5 grams carbohydrates daily up to 20 grams, and then 5 grams every other day, passing successively upward through the 5, 10 and 15 per cent. vegetables, 5 and 10 per cent. fruits, potato and oatmeal to bread, unless sugar appears or the tolerance reaches 3 grams carbohydrate per kilogram body weight.

**Protein Tolerance.** When the urine has been sugar-free for two days, add 20 grams protein (three eggs) and thereafter 15 grams protein daily in the form of meat until the patient is receiving 1 gram protein per kilogram body weight; or, if the carbohydrate tolerance is zero, only \( \frac{3}{4} \) gram per kilogram body weight. Later if desired the
protein may be raised to \( \frac{1}{5} \) gram per kilogram body weight.

**Fat Tolerance.** While testing the protein tolerance, a small quantity of fat is included in the eggs and meat given. Add no more fat until the protein reaches 1 gram per kilogram (unless the protein tolerance is below this figure) but then add 5 grams fat daily until the patient ceases to lose weight or receives not over 40 calories per kilogram body weight.

**Reappearance of Sugar.** The return of the sugar demands fasting for twenty-four hours, or until sugar-free. The diet preceding the reappearance of sugar is then resumed except that the carbohydrate should not exceed half the former tolerance until the urine has been sugar-free for two weeks, and it should not then be increased more than 5 grams per week.

**Weekly fast days.** Whenever the tolerance is less than 20 grams carbohydrate, fasting should be practised one day in seven; when the tolerance is between 20 and 50 grams carbohydrate 5 per cent vegetables and one-half the usual quantity of protein and fat are allowed upon the fast day; when the tolerance is between 50 and 100 grams carbohydrate, the 10 per cent and 15 per cent vegetables are added as well. If the tolerance is more than 100 grams carbohydrate, upon the weekly fast day the carbohydrate should be halved.

Bread is seldom prescribed because it is so easy for a patient to over-step the limits. Many patients use bread substitutes, such as Huntley and Palmer's Akoll Biscuits, Barker's Gluten Flour (Brand A), Hepco Flour, Lyster Bros. Diabetic Flour, Whitefield, New Hampshire. The quantity of fat which it is necessary to give a severe case is considerable. A diabetic weighing 60 kilograms requires at least 30 calories per kilogram body weight to be up and about the hospital with an occasional walk. Since in the severe cases not more than 10 grams carbohydrate, representing 40 calories, can be given in this form, and seldom more than 75 grams protein, (1.25 grams per kilogram body weight) which would amount to 300 calories more, the balance of the diet must be made up of 150 grams fat, amounting to 1,350 calories, and even more unless 15 grams alcohol are given, which would amount to 105 calories. The quantity of fat (150 grams to 160 grams) is easily given in the form of 120 c.c. of 40 per cent cream (48 grams), 15 grams of oil (15 grams) and 3 eggs (15 grams), bacon (cooked) 30 grams (15 grams), meat, cooked, 100 grams, (5 grams), and butter 60 grams, (50 grams). These figures are only approximately correct. Should the patient remain sugar-free and the weight be maintained upon this diet, gradually the quantity of fat could be lowered and the carbohydrate increased. A very few of my patients have a tolerance for between 200 and 300 grams of carbohydrate. With most, the tolerance is below 100 grams, and with the majority it is below 50 grams. The patient should have one day of restricted diet each week, no matter how mild the case. This is done partly to spare the function which controls the carbohydrate metabolism, but also to remind the patient of what a strict diet really is. The patient is told to gain little or no weight, and as Dr. Allen advises, not to come up to his former weight. In the severer cases examine the urine daily, and in the milder ones once a week.
The Etiology of Sprue. No investigation into the pathology and causation of disease could be of more interest to foreign practitioners in the East than one relating to Sprue. The researches of Bahr (Trans. Soc. Trop. Med. and Hyg., April 1914) suggested that the disease might be due to a fungus, Monilia albicans, but it was difficult to believe that a fungus so commonly prevalent in England could be the cause of a tropical affection, so his report was discouragingly received. However, the important contribution of Dr. Bailey K. Ashford, Director of the Porto Rico Institute of Tropical Medicine and Hygiene (Amer. Jour. Med. Sci. 1915, p. 680) has just come to hand and appears to have settled the matter definitely.

It is striking that the paragraph on "Etiology" in our best textbooks of Tropical Medicine should have so long had to remain barren. Manson can only suggest prolonged residence in the tropics, or exhausting disease, as the causative agent most likely to be incriminated. Jackson is inclined to view the affection as in some way related to dysentery. Maxwell is sure there must be "a parasitic cause." Castellani reviews the various theories and points out that nothing is definitely known. He reminds us, too, that the first accurate description of this condition was published in 1766 by Hillary of Barbadoes, who wrote of "aphthoides chronica." It is interesting to observe that from the West Indies, after all, has come our final definite utterance with regard to the etiology of this puzzling affection. Dr. Ashford found sprue to be a disease of growing seriousness in Porto Rico and had given himself with great energy to the solution of the problem of its etiology. After Bahr's publication, while studying a young American official ill with the disease, he found one day a growth obtained by scraping the tongue, and the culture then obtained led to his earlier publication, "A Monilia found in Certain Cases of Sprue" (Jour. Amer. Med. Assoc. 1915, LIV, 810). Three other cases were reported there of similar tongue cultures.

After that time Dr. Ashford made 220 cultures from the tongue and 50 from the feces in 197 persons. As the entire laboratory routine fell upon him personally there was an unusual amount of uniformity possible in the study. His culture is that of an undetermined species of Monilia, leading him to assign the term "Moniliasis" as a desirable one for accurately describing sprue in the future. To use his own words: "The organism is a typical monilia reproducing by side-buds and terminal conidia from specialized hyphae, as well as by budding from yeast forms. Ascospores are never seen, but chlamydospore-like bodies are frequent, especially in older cultures. The yeast is round, from 2 to 7 microns in diameter, averaging from 3 to 4, with clear, clean-cut outline, usually containing a relatively large refractile body, and a much larger, faintly outlined vacuole. Tendency to mycelial formation is seen by the round yeasts enlarging and becoming oval. As the yeasts become larger, many active, highly refractive bodies of the size of a staphylococcus race incessantly about within the organism, reaching their largest number and greatest size in the chlamydospore-like, thick-shelled forms, and frequently passing out into the fluid medium in which they grow, thus confusing the novice into believing that a con-
The contaminating coccus may complicate his apparently pure culture.

"The mycelium is well developed, usually very abundant and presenting sparsely branching hyphae, sometimes over 1000 micra long which consist of articles from 10 to 60 micra long by 1.5 micra broad, the usual length being 15 micra. These hyphae are of two distinct varieties: thin, often granular and 1 to 1.5 micra wide, and thick, often clear and 2.25 to 3 or 4 micra wide. The latter variety, at times without apparent structure interiorly, is more frequently punctuated at regular intervals by the highly refractile bodies described in the round and oval yeasts. These are from ½ to 2 micra in diameter and give a brilliant beaded appearance to the article. They stain as for chromatin by Giemsa. At times with the refractile bodies, at times without them, articles are seen frequently to have rectangular vacuoles of the same refractive index as those seen in the larger yeasts, thus dividing the article as it were into compartments and giving the hyphae the appearance of a bamboo pole sawn longitudinally. In old cultures many large yeasts are seen of 10 to 13 micra diameter as also involution forms of bizarre and clumsy outline, empty, collapsed chlamydospore like bodies, and heavy shelled prickle cells faintly suggesting the ova of ascaris lumbricoides.

"The only satisfactory stain I have yet found for the outer shell of the mycelial threads is by Bodin's Victoria blue method. For staining in tissues there are only two methods that can be recommended and they are both of the highest excellence. The first is Weigert's fibrin method giving fine contrast by Gram's application. The second is Bodin's Victoria Blue method. This may be summarized as follows: (1) Paraffin sections of mercuric chloride, absolute alcohol or formalin fixed tissue sections not over 5 micra: (2) after usual preparation for staining, immerse for five minutes in 1/2% erythrosin, aqueous solution, wash well; (3) twenty-four hours in equal parts of a saturated alcoholic solution of Victoria blue and distilled water; (4) thorough washing in water and Weigert's stronger Gram solution for five minutes; (5) thorough drying and differentiation in aniline oil and xylol, equal parts; (6) thorough washing and clearing in xylol: (7) mount in balsam.

"Cultural Peculiarities. The first labor was that of finding a specific medium. That one has been found in Sabouraud's glucose agar, 4 per cent. + 2, is evident to anyone who cares to try it. As far as these yeasts are concerned it is ideal, as bacterial growth is efficiently inhibited even in strokes from feces and agar plates, the monilia standing out with unfailing precision as moist, white colonies of sharply contoured lines.

"In culture from the tongue, a section lifter is sterilized in the flame and the borders and tip are gently scraped, the grumous material being spread upon a Sabouraud glucose agar slant by means of a sterile platinum loop. Twenty-four to forty-eight hours is all that is usually needed to bring out a monilia which is plated by the familiar three-plate method, and is easily recovered in another twenty-four to forty-eight hours in pure culture. For feces the Sabouraud agar is poured into a Petri dish, allowed to cool and harden, and is infected by parallel strokes. Suspicious colonies are then plated by the three-plate method. These methods were strictly observed in all cultures except that two, instead of three plates, were frequently used.
"I am able to fully corroborate Bahr's evidence in all save human necropsy findings, as yet denied me, and with the exception of his statement that the sprue yeast fungus bears no evidence of being otherwise than indetical with Monilia albicans. In this matter we are not in accord as far as it may apply to Porto Rico where I have described a species, not Monilia albicans, present in 100% of my cases of clinically positive sprue. In addition to this I have isolated this new species from the center of a loaf of bread from an endemic focus in Porto Rico.

"I therefore offer the following tentative conclusions drawn from the work as studied in Porto Rico and described in the body of this paper and from the accepted facts presented by authors regarding the human histo-pathology.

Conclusions. (a) Clinical:
1. Sprue is usually a mild disease with a veiled picture in which intestinal fermentation is usually present, a tendency to spontaneous cure and a ready submissiveness to a non-carbohydrate diet.
2. Tongue lesions are often clinically and histo-pathologically indistinguishable from ordinary thrush, a disease due as a rule to Monilia albicans.
3. Clinically and histo-pathologically the picture of the tongue is projected on through stomach to intestine.
4. Chronic intoxication supervenes after well-developed sprue, and the liver atrophies without cirrhotic changes, secondary anemia making its appearance.
5. The intestinal lesions produce large, acid, frothy, white stools with excessive gas production, and full of yeasts. The character of these stools does not warrant the belief that serious ulceration takes place.
6. There is a tendency to chronicity and to periods of latency in which decided betterment or apparent cure may take place.
7. Drugs are of little avail, save when used symptomatically for definite clinical crises, and no specific has yet been found.

(b) Epidemiological:
1. Sprue is a disease of towns and cities where bread is a staple food.
2. Sprue is apparently rare in the country districts where bread is not at least a daily food and where often it is eaten only at long intervals.
3. Family endemics are noticeable.
4. There seems to be racial predisposition to sprue in persons of northern birth.

(c) Biological:
1. A monilia, 'not heretofore described, and of undetermined species is apparently constantly found in cultures from the inflamed tongue, or feces, of persons suffering from sprue in Porto Rico.
2. This monilia has been found in the centre of a cooked loaf of bread baked in an endemic zone.
3. This monilia has been found in certain cases of fermentative disturbance of the intestine in which the complete picture of sprue is not developed.
4. The monilia is found in only 3% of persons, apparently entirely healthy or at least free from any gastro-intestinal disturbance.
5. The complement fixation test is positive for all of the reduced number of cases of complete sprue in which it has thus far been applied, and negative for several times that number of persons without sprue.
6. This monilia is not only productive of mycotic septicæmia in small laboratory animals injected..."
Fig. 7.—Monilia (?). Section from 8-day gelatin stab, fuchsin stain. Fruiting hyphae with lateral and terminal sporulation. (x1000 diam.) (Drs. Boggs and Pincoffs.)
Preventive Medicine in China.

with virulent culture but will produce severe and intractable mycotic ulcers in their tissues when they are relatively immunized to the extent of preventing a mycotic septicæmia."

E. H. H.

PULMONARY MONILIASIS. In the Bulletin of The Johns Hopkins Hospital, December, 1915, Drs. Boggs and Pincoffs report a fatal case of "Pulmonary Moniliasis," in which the pathogenic organism is described as a monilia morphologically indistinguishable from that described by Ashford for tropical Sprue. The methods of reproduction observed in cultures were:

(1) oidial chains of spores from large yeast-like cells or hyphae;

(2) lateral masses of free spores without sterygmata, which developed by budding at the joints of the hyphae;

(3) terminal sporulation by budding or constriction at the ends of hyphae, the spores so produced being morphologically like the yeast cells;

(4) chlamydo-spores, which may form at the end of short or long hyphae, or singly, or in groups at the joints of primary or secondary branches. As to the occurrence of sterygmata none were seen unless the structures bearing the chlamydo-spores may be so interpreted. Ascosporulation has as yet not been found. This distinguishes the organism of Moniliasis from Endomyces Albicans, the organism of Thrush, which it somewhat resembles.

HEALTH CAMPAIGN IN HANGCHOW.

The Public Health campaign, carried on in Hangchow during the last week of November, 1915, by Dr. Peter, was a great success. In spite of a steady downpour of rain during the first three days, some 7,000 attended the exhibition and lectures, and although this is a small number in comparison with the number of visitors in other large towns visited, the influence was great and widespread.

The Commissioner of Police, who has charge of the public health and sanitary departments of the city, a bright and wide-awake official, was delighted to cooperate with us in the campaign. He practically paid all expenses except the rent and lighting of the hall which were not charged for. To the balance of his contribution the Y.M.C.A. added sufficient to purchase 20,000 of the popular tuberculosis story calendars, which the Commissioner very kindly distributed to the police. He not only came to see the exhibits himself, but sent his whole force in relays to hear the lectures and examine the charts, models, diagrams, etc. The audience the first day was composed chiefly of officials and the upper classes. The invitations were distributed by the Police Commissioner, and he must have backed them up with a good deal of moral suasion, because in spite of the torrents of rain and flooding of the streets, more than 150 were present. The Civil Governor was to have presided, but an important previous engagement prevented him, and his place was taken by the Taoyn.

In the Medical College the classes were suspended for a whole week and the students were put in charge of the exhibits and also acted as guides and lecturers. What they saw and heard is to form the subject of a class examination at the end of the month. The work done by the students helped considerably
towards the success of the campaign. The police, the guardians of the law and the health of the city, also showed their interest in a practical way; they were sent out by the Commissioner with tickets to the sellers of vegetables, fruits, sweets, meat, and other edibles. In addition to the tickets they added verbal invitations that must have had their effect. A few days later they distributed the 20,000 calendars in the homes of the people. One may expect to see their interest translated into cleaner streets and more pride in their work.

A special feature of the day "for women only," was the bathing and feeding of a baby from the maternity hospital. The demonstration was carried out by one of Mrs. Main's maternity nurses, and Miss Tsay superintended and gave a valuable address on the care of children. She has had training in Scotland and has had many years' experience under Mrs. Main in the Women's Hospital.

Dr. Peter supplemented his work by a very interesting magic lantern lecture on Sanitation.

The Civil Governor was greatly pleased with the result of the campaign and gave a dinner party by way of showing his appreciation, inviting Dr. Peter; the Commissioner of Foreign Affairs; Police Commissioner Dr. Li; Chief Military Surgeon, Dr. Han; the Principal of the Government Medical School; Mr. Turner of the Y. M. C. A.; and Dr. Duncan Main.

The campaign has done much good. It is unnecessary to say it was much needed, for preservation of health and sanitary measures are practically unknown in Hangchow, and very little is done along hygienic lines except by those whom we have trained, and their task is not an easy one. The difficulty of introducing Western methods and sanitary measures opposed to ancient customs and superstitions to which people are strongly wedded is very great indeed. What is needed to make the campaign lasting in its influence is an awakened conscience on the subject of how to live a healthy life.

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**Book Reviews.**

**Anatomy of the Brain and Spinal Cord,** with special reference to Mechanism and Function. For Students and Practitioners. By Harris E. Santee, A.M., M.D., Ph.D., Professor of Anatomy in Chicago College of Medicine and Surgery, Medical Department of Valparaiso University; Professor of Anatomy in Jenner Medical College, Chicago; Member of Association of American Anatomists; formerly Professor of Anatomy in the College of Physicians and Surgeons, Chicago, Medical Department of the University of Illinois; and Professor of Anatomy in Harvey Medical College, Chicago. Fifth edition, revised and enlarged, with 158 illustrations, 46 of which are printed in colors. Price gold $4.00 net. Publishers: P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia.

Recent advances in human anatomy and its allied sciences have necessitated the thorough revision of this work in order to place it fully abreast of the times. The special objects the author holds in view are the location of functional centres and the tracing of their
afferent, associative, and efferent connections. Function is everywhere correlated with structure; and so far as present knowledge permits, the function of each group of neurones is given in connection with its anatomical description.

A few points are open to criticism. The statement of the functions of the hypophysis is hardly as full and correct as it might be. As to the functions of the pineal gland, while it is true that Des Cartes did conjecture that this organ might be the abode of the human spirit, or, rather, that by means of the gland, which he regarded as the source of the "animal spirits," the soul came into union with the body, he was not a materialist, and in his metaphysical speculations was not, as the author imagines, in the least inclined to facetiousness.

It is a little surprising that the author appears to hold that races can be distinguished according to their cranial capacity, the "cultured and aggressive races" possessing the larger brains. In support of this belief, relying on the investigations of Davis in 1867, the average brain weight of the Caucasian is said to be 1,335 gm., while that of the Chinese is 1,330 gm. As a matter of fact, Davis examined only 21 Chinese skulls, which must have been those of very poor persons as they were unable to make provision for their bodies to be returned to China. This is a very slight foundation on which to build a theory of racial superiority. So with the national differences quoted by the author. Villiger gives the average weight of the German brain as 1,425 gm.; the English brain, 1,345 gm.; and the French brain, 1,280 gm.; most of the specimens being obtained from the dissecting room. On the other hand, the findings in 108 distinguished men by another craniologist gives the average brain weight of Americans as 1,519 gm., while that of the Germans and Austrians is 1,439 gm. So the American is, or should be, the most cultured and aggressive nation. Few good Americans will be inclined to dispute this conclusion. Nevertheless, they will probably be the first to say that discussions of this kind between representatives of different nationalities are bound to be barren and unprofitable. Craniology is a fascinating study, but its findings, apart from many other considerations, cannot be taken as a firm basis for estimating the intelligence and energy of either races or nations.

On his own particular field, however, of the anatomy of the brain and spinal cord, macroscopic and microscopic, the author's work is all that can be desired. The illustrations, many of them original, are admirable. We cordially commend the work to all who are interested in the structure and functions of the central nervous system.

This Manual has been prepared for the undergraduate whose crowded hours demand a volume stripped of verbiage and unessentials, and for the practitioner who seeks a guide to present-day surgery. The author's chief desire has been to set down concisely and completely those facts which the student must know, and give such suggestions as to diagnosis and treatment as will best aid the physician in his daily practice. Etiology, pathology, and symptomatology are mentioned briefly yet adequately. The operative treatment and surgical technic are set forth in a clear and distinct style. The articles on blood-vessel surgery are brought up to date with Carrel's work. The author himself was one of the first to suture the heart. The latest advances in the transplantation of tissues,—bone, fat, fasciae, and nerves—are described, and also many plastic operations. The accompanying diagrams and illustrations are clear and helpful. Of special interest to surgeons is the author's operation for the removal of the breast, and his method of performing herniotomy.


This handy compend of Anatomy is now in its eighth edition. While it cannot take the place in the instruction of students of the larger works on Anatomy it serves a useful purpose as a condensed and accurate compendium of the essentials of gross anatomy. A criticism often made of anatomical text-books is that too much is included of related subjects such as Embryology, Histology, and Surgery. Except that important histological details of the organs of special sense are given, the Compend does not attempt to cover so wide a field. The omission of the centres of ossification and the relation of important structures to each other might be included, however, without greatly increasing the size of the book. Two of its most valuable features are the plates and tables of the arterial and nervous systems, and the work is well indexed. Altogether, it should be a very useful aid to the student and practitioner in reviewing the essentials of anatomy.

This book is divided into eleven chapters with the following headings: Epulis, Sarcoma of the Jaws, Benign Tumors of the Jaws, Odontoma, Carcinoma of the Jaws, the Diagnosis and Operative Treatment of Malignant Diseases of the Upper and Lower Jaws, Tumors of the Palate, Leontiasis Ossea, Prosthesis. The numerous splendid illustrations, and the case histories which help to make vivid the picture of each tumor of the jaw, will greatly help the surgeon to reach a satisfactory diagnosis and plan of treatment in his own cases. The author urges a thorough examination to determine the exact nature of every growth. He believes that all tumors of the jaw should be considered malignant until proved to be benign. When malignancy is found, he urges a more radical operation than is usually done even though the immediate mortality may be a little higher. Improved operative technic has greatly lessened the dangers of radical treatment.

This book should prove a valuable guide to the surgeon who is called upon to diagnose and treat new growths of the jaws.

ANNALS OF TROPICAL MEDICINE AND PARASITOLOGY. Liverpool, July 31st, 1915.

Annual subscription £1.2.6.

In the July issue of these annals the article that should prove of most value to medical men in China is a scientific study by Fantham of the Spirocheta bronchialis based on specimens obtained from twenty different individuals. Over 500 drawings were made with a camera lucida, and a plate reproduces over fifty of these showing the amount of morphological variation that may be present, and allowing a comparison to be made with the spirochetes found in the mouth. An article by Davy draws attention to that little known condition, "Juxta-articular subcutaneous nodules." He found these nodules in 80 out of 2,378 adults examined in Nyassaland and believes they are a late manifestation of Yaws. Fraser and Fletcher's paper on the cultivation of the leprosy bacillus is based on work carried on for three and a half years. It is summarised in one of their concluding paragraphs as follows: "We have now excised material from fifty-two non-ulcerating nodular cases of leprosy, a number far in excess of that recorded by any other worker, and have employed the media of every claimant to success, but have not substantiated the claims of any of them.... The conclusions are that the leprosy bacillus has not been cultivated and that the diphtheroids and other organisms are merely contaminat-
tions." There is a record of a case of Quartan Malaria associated with Blackwater Fever, but the remaining articles (dealing with *Glossina palpalis*, the reservoir of the human *trypanosome* in Sierra Leone, and the parasites of domestic animals) do not come within the ken of the clinical worker in China.


A Visiting List ever renewing its youth, yet which has reached the venerable age of three score years and five, needs but few words of commendation. In addition to the usual provision for the registration of various memoranda, the book contains much information useful in the emergencies of medical practice.

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**The National Medical Association of China.**

This Association, which has just held its first Conference in Shanghai, brought its sessions to a close on February 12th, 1916. Various resolutions were passed, and the following officers were elected for the ensuing year:

**Executive Committee:**—President, Wu Lien-teh, M.A., M.D., (Cantab); Vice-presidents, C. Voonping Yui, M.D., D.P.H.; F. Lih, M.D.; Treasurer, E. S. Tyau, M.D., D.P.H. (Penn.); Secretaries, H. Abel Tang, M.D., W. B. New, M.D., (Harvard); Business Manager, Dr. T. K. M. Siau.


Regarding the *Journal* of the National Medical Association, it was decided to make it a quarterly publication in Chinese and English. Formal votes of thanks were passed to the China Missionary Medical Association, the various hosts in Shanghai, the Y. M. C. A., and the Press which had devoted so much of their space daily to their sessions. It was decided to admit qualified foreign practitioners as affiliated members of the Association.

The following resolutions were passed unanimously:

That in view of the increasing number of practitioners of western medicine and of drug shops selling western medicine throughout the country, and of the need of protecting the public against unscrupulous persons, this Conference petition the Central Government to take proper steps for the registration of practitioners of western medicine and of drug shops selling foreign medicine.
Nurses' Association of China.

That in view of the increasing number of medical colleges and graduates from these institutions in China, and of the importance of placing all medical practitioners under direct Government supervision, this Conference request the Government to establish a Central Medical Board in Peking, consisting of representatives from the Government and principal medical institutions, with powers to fix the medical curriculum, grant licences and to supervise examinations throughout the country.

That owing to the unchecked spread of tuberculosis and venereal diseases among all classes of the population, this Conference draw the attention of the Central and Provincial Governments to the need of taking proper steps to combat these evils.

That in view of the importance of Public Health to the nation, this Conference respectfully urge the Government to establish a Public Health Service without delay throughout the country.

That in view of the absolute need of modern medicine to China and of the sympathetic support of so many foreign lands in the introduction of medical science among our people, this Association petition the Waichapu and the Board of Education for an annual grant of at least ten scholarships to students of medicine from the Indemnity Fund.

Nurses' Association of China.

OFFICERS, 1914 to 1915.

President:—Miss E. Hopr-Bell, Hankow.
Vice-President:—Mrs. Bayard Lyon, Tientsin.
Treasurer:—Miss Chisholm, Shanghai.
General Secretary:—Miss Alice Clark, Shanghai.
Editorial Secretary:—Miss Laura Lenhart, Shanghai.

The following questions were asked at the N. A. C. examinations held in May, 1915. The Committee on Examinations invite free criticism and suggestions. All communications on the subject to be sent to Miss Ogden, St. James' Hospital, Anking.

EXAMINATION FOR DIPLOMA. 1915.

Anatomy and Physiology.—Time allowed, 6 hours. (Dr. Taylor.)—Write ten of the following questions.

1. Name and describe the bones of the forearm. 2. Name the bones of the spine. 3. Describe a ball-and-socket joint. 4. Describe the three kinds of muscular tissue. 5. Describe the diaphragm and its action. 6. Trace the circulation of the blood from the left ventricle of the heart, over the body and back to the left ventricle. 7. Describe a cell, its structure and function. 8. Describe areolar tissue. 9. What are the effects of respiration on the blood? 10. Describe the liver and its function. 11. Describe the process of digestion. 12. Describe the secretion of urine.

Hygiene and Elementary Bacteriology.—Write ten questions.

1. Why is bathing so important to health? 2. What is the object of ventilation? 3. Give a reliable disinfectant for each of the following and state exactly how the disinfectant is to be used: typhoid stools; bed clothing from case of typhoid;
tubercular sputum. 4. Why should malarial patients be screened from insects? 5. Name two diseases caused by infected food, and two caused by insects. 6. What is meant by quarantine? 7. What are bacteria? Name three kinds according to shape. 8. Name three diseases caused by bacteria, and the bacterium causing each. 9. What are spores? What bearing have they on sterilization? 10. What is meant by surgical asepsis? by antisepsis? 11. Given a room 10 ft by 20 by 10; give method of disinfecting it in detail, stating amounts of chemicals to be used. 12. What is a contagious disease?

Dietetics.—Write five questions.
1. Name the three classes of foodstuffs and give an example of each. 2. Describe the dietetic preparation of patients in treatment of Ankylostomiasis. 3. Describe the dietetic treatment of typhoid fever. 4. Describe the preparation of arrowroot for food. 5. Name three Chinese foods useful for extra nourishment, (excluding milk). 6. Describe two Chinese ways of preparing eggs which render them easily digestible.

Materia Medica.—Write ten questions.
1. Name five disinfectants and give strength in which each is used. 2. Name three emetics and emetic dose of each. 3. What is an emulsion and why used? 4. If an adult dose is 30 grains, how much would you give a child of four years? 5. Given a solution of a drug of which minims 15 contain grain 1/30, how much of the solution would you use to give grain 1/75? 6. Name a cardiac stimulant and give its action. 7. Describe the action of mercury. 8. Name three kinds of cathartics and one cathartic of each kind. 9. Give the dose of Tr. Nux Vomica, of Morphin, of Atropin, of Nitro-Glycerin, of Potassium Bromide. 10. Give symptoms of opium poisoning, and describe treatment. 11. Give symptoms of Atropin poisoning and treatment. 12. Give symptoms and treatment of acute lead poisoning.

Questions on Gastro-intestinal Cases.—Time allowed, 3 hours. (Dr. Tatchell.)
1. How would you prepare the theatre for a supra-pubic cystotomy operation? What instruments, dressings, lotions, etc., would you have ready? How would you nurse the patient during the first week after the operation? 2. For three months patient has been passing blood and pus in his urine. What may be the cause? The surgeon tells you to prepare the patient, instruments, dressings, lotions, etc., for removing the left kidney two days hence. How would you do so up to the time of the operation?

Gynecological and Obstetric Nursing. — (For women nurses.)
1. How would you prepare the patient and theatre for the operation of Cae-sarean section? How would you nurse patient for the first fortnight after the operation? 2. How would you nurse a mother and child for the first three weeks after the confinement? What complications may arise to both mother and child during that time?

Ophthalmic Nursing.
1. What instruments, lotions, and dressings would you prepare for the operation of extracting a cataract? How would you prepare the patient for the operation? 2. Supposing a patient pass a purulent discharge from his left eye, what precautions would you take to protect his right eye, and also eyes of other patients? 3. What precautions would you take in nursing a patient with a corneal ulcer?

First Aid.
1. A man falls from a height and severely injures his head, and one of his legs. Mention the various kinds of hemorrhages you would expect to find. How would you render first aid in case of each kind of hemorrhage? 2. During an
Nurses' Association of China.

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explosion of gunpowder a man is badly burnt about his trunk and limbs. What are the degrees of burns he may receive and what would you do for him until the doctor arrives?

Medical and Surgical Nursing.—Time allowed, 2 hours. (Mrs. Lyon.)

1. What are the chief points to remember in nursing a case of typhoid fever?
2. If you were nursing a patient with some infectious disease what method would you use to prevent yourself from taking the disease?
3. How would you prepare a female patient, operating theatre, dressings, and instruments for an abdominal operation? Describe the after-nursing of such a patient.
4. Give the symptoms of internal hemorrhage. How would you treat the patient while awaiting the doctor's arrival?
5. What are the symptoms of fracture? Name five different forms of fracture. How would you prepare a bed for a patient suffering from fracture of the leg?

General Nursing Principles.—Time allowed, 4 hours. (Miss Clark.)

1. What are the general important points to be considered in the care of any patient in bed?
2. A case of opium poisoning being brought into the ward, what would you prepare for the doctor to use? What precaution would you take until the doctor arrives?
3. Name causes for patients getting bedsores. What would you do to prevent them?
4. Give various ways of applying heat. What would you prepare for a hot air bath? How would you give it?
5. What would you do for a patient in a rigor until the doctor arrives?
6. How would you prepare peptonised milk and albumen water?
7. What are the advantages of milk as a diet for patients? Why should it be boiled before using?
8. Explain the following terms:—asepsis, crisis, hyperpyrexia, antiseptic, antidote, temperature, ventilate, sterilize, collapse, antitoxin.

N.B.—Please observe that spaces are left on the Chinese papers to insert English terms if necessary. If filled in please use ink, for the examiner wishes to know if this is taken advantage of.

Nursing of Children.

1. Why would you not give a baby of one month starchy food?
2. What observation would you make in receiving a child of two years old into the ward?
3. A child with a fractured femur is brought in. What would you prepare for the doctor to use?
4. A child in the ward develops a high temperature and rash. What would this suggest?
5. What precautions would you take?
6. How would you prepare and give a rectal wash out?
7. A child is brought in badly burnt. What would you do until the doctor arrives?
8. A child is suffering from pulmonary phthisis and cannot be left in hospital. How would you advise the friends?

Nursing.—Tending the sick has risen to the dignity of a profession, and a special training is required for those who undertake it. The keynote of good nursing is an intelligent obedience, only attainable by systematic education. Women who wish to be nurses need practical skill, powers of observation, and tact in dealing with various idiosyncrasies. They must also remember that time is needed in which to gain these qualities and the knowledge which experience alone can give.—Allbutt's System of Medicine.
Correspondence.

Correspondents are requested to write on one side of the paper only, and always to send their real names and addresses. The Journal does not hold itself responsible for the opinions or assertions of correspondents; nor can it undertake to return unused MSS.

Kuling Medical Association.
To the Editor, C.M.J.

DEAR SIR:—"It is with regret that we announce the resignation of Dr. Harry Taylor as President of the Kuling Medical Missionary Association. We take pleasure, however, in informing the members that Dr. Arthur Tatchell, having been duly elected by the Association last summer as President-Elect, has, at the request of the Executive Committee, consented to serve as President for the year 1916-1917."

Yours truly,
MARY LATIMER JAMES.
Secretary of the Kuling Medical Missionary Association.

Ulcus Tropicum.
To the Editor, C.M.J.

DEAR SIR:—"Concerning Ulcus Tropicum and in reply to Dr. Birks' letter in the November Journal, one cannot do better than quote Dr. O. T. Logan in reply to a personal enquiry of years ago:—"We have found that the majority of these [ulcers] are caused by Vincent's fus-o-spiriellar symbiosis. We have had splendid success in treating them by scraping down to a healthy base, and applying pure Nitric Acid, which is neutralised in ten seconds or so with Sod. Bicarb. They are almost free from pain after they wake up from anaesthetic, and remain so until healed."

The success of this method is so striking that for some time past we have been refusing to undertake the treatment of Ulcus Tropicum on any other terms. If the patient cannot or will not come in for it, his alternative is to get treatment elsewhere. One has not had quite such happy results if the patient goes out before the healing process is well advanced. There often seems to ensue a chronic engorgement of the region not seen if, or while, the patient is in bed. One would be glad to know from Dr. Logan whether this is due to any deficiency in the original treatment leaving a remnant of the infection behind? Or if it be due to some more or less permanent injury to the local blood vessels, or their innervation? It does not seem to affect the healing process in hospital, but shows itself immediately on going out.

In applying the treatment in the Out-Patient Department, one has repeatedly seen the inflammation cut short, only to reappear slowly a few days later as the eschar separates.

Yours sincerely,
GEO. HADDEN.

YUNGHOWFU, HUNAN.

A Plea for Retention of Native Costumes.
To the Editor, C.M.J.

DEAR SIR:—However the custom may have arisen for Koreans to wear white clothes at all seasons of the year, in the absence of many other sanitary measures it has no doubt been the physical salvation of this people.

We must remember that covering the skin from the air and light is not natural and is therefore harmful in proportion to the amount, texture and colour of the clothing dictated by custom and prudery of the countries using them. Nature knows neither prudery nor custom. The lungs and kidneys suffer, and frequently break down, because of the extra work thrust upon them from the skin being hindered from performing its proper share of the functions of respiration and excretion. The ill-effect of clothing has been strikingly shown where savages in the habit of going nude have been induced to adopt the white man's dress, and then have been swept away with the white man's plague! The wearing of warm or tight hats causes baldness, and we have been told that the broken arches and painful feet, so much complained of in Western lands nowadays, is attributed to the binding of the tendons and muscles of the ankle and arch of the foot by laced or buttoned shoes from childhood on. It is said that those who wear sandals are not thus affected, or much less so.

If a little thought be given to it, it can easily be determined that the Korean costume from head to foot is the most hygienic among civilized nations. Their
gauze hats, even though worn in-doors as well as out, never cause baldness, and the head protection for severe weather worn under the hat is quite open over the crown; their foot-gear does not cause broken arches. Their custom of removing the shoes at the entrance of their rooms is a great protection against carrying in the germs from off the street. It would be well were it followed by all nations, since young children everywhere spend much of their time upon the floor.

But to return to clothing and its colour. If we were this month to take two pieces of cloth, one white and the other black, and fasten them down side by side over the grass that is just springing from the earth and then next month remove the same, we should note under the white cloth the grass growing fresh and green, but under the black cloth it would look yellow and sickly if not dead. It is not from lack of the sun's heat, for black draws the heat, as may be illustrated by placing the same patches upon a snowdrift. The black one sinks far in after the sun has shone upon it a day, while there is little or no perceptible change under the white one. So it would seem that it is the light of the sun that is required for life and growth. There is a radiant energy in the sun's light that, coming in contact with the body directly, or through white or light clothing, is really a tonic. One can walk farther and with less fatigue upon a sunny day clothed in white than in black.

Germs emanating from decayed or diseased bodies are much more readily absorbed by black garments than by white, and you may have noticed that dark clothes exposed to tobacco fumes retain the odour longer than light ones.

Persons wearing dark clothing are more liable to infectious than those who wear light apparel. Physicians and nurses in hospitals generally wear white, and such clothing when soiled or infected can be boiled and thus thoroughly disinfected without harming it.

Of all civilized countries the Chinese costume is considered the most modest and hygienic, but the Korean dress surpasses it in its lack of colour even in winter, while being made warm and comfortable by simply wadding it with white cotton-batting. The warmth of our clothing depends upon the amount of warm air it will hold in its meshes, and the way the Korean wears her furs upon the inside of her jacket is much more sensible than wearing them upon the outside as her Western sister does; and if she cannot afford fur, a wadding of cotton is just as warm and more easily cleaned, and is preferable to wool too for the same reason. If the Korean woman suspended her garments from her shoulders (as every woman should, but doesn't), her costume is all right, even as it is, it is less objectionable to bind it about the chest, which from its very anatomy can be compressed but little, than to bind it just above all the tender abdominal organs.

Both Korea and China in their white mourning costume symbolize their faith in immortality more appropriately than the Westerners. Ruskin has said "Why should we wear black for the guests of God?" At the funeral service of General Booth, on the arm of each Salvation Army member was worn a band of white, and at the memorial service held in London by the Salvation Army for the dead of the "Empress of Ireland" disaster, ninety-four vacant chairs were draped in white, not black, an innovation that promises the Occident may yet learn from the Orient.

It may be said that the Japanese have survived their dark clothing. Well, their style is such that they can easily slip out of their dark clothes into a water-bath or air-bath, as the case may be, so that it does not prove any fallacy.

However, until the Korean can bath easier, keep rid of vermin, and live more hygienically in many ways, don't encase him in black clothes, foreign shoes and hats, or in brick-walled houses with glass windows.

We should deeply deprecate the way school-children, both boys and girls, are adopting more and more black uniforms in place of the white and the pretty tints of blue, green, or pink they used to wear. Red is another objectionable colour,—mark its effect upon the bull or the turkey-cock, and it has a somewhat similar effect upon other animals, including man.

Black clothes might take a little less of the Korean housewife's time, but we must remember that everything of value costs either time or money.

Instead of the local authorities encouraging Koreans to wear dyed clothes they should advise against it, as also should school teachers, and all physicians.

Dyed clothing for the Koreans would no doubt prove lucrative not only to the dye factories, importers, and merchants, but to the doctors and undertakers as well. Every can of black dye would mean about so much "white plague"!

ROSETTA SHERWOOD HALL.
PYONG YANG.

* In an article on "China's New Woman," the North-China Daily News,
The China Medical Journal.

in a recent issue, writes in a strain similar to that of our correspondent. It states "that the influence of the western world on the Chinese in the matter of dress, as evidenced by a depressing sight the other day, is a baleful one has regretfully to be admitted. The 'sight' was a buxom girl of eighteen or nineteen sitting with a quietly dressed woman in a ricksha and arrayed in a hybrid costume which was the last word in ugliness. A cigarette stuck jauntily between her lips, on her sleek head was perched a woeful caricature of a peaked 'service' cap, which, made of sponge-bag check, looked horribly out of keeping with the hand-some pigtail. A man's long coat surmounted by a handsome brocade waistcoat combined curiously with the rest, for on her shapely feet was a pair of American patent leather shoes with clubbed toes. It seems a thousand pities that Chinese women should not realize how extremely well off they are as regards dress. For convenience and suitability nothing western has ever been able to compare with the neat coiffure and the sensible coats and trousers of Chinese women, and when they entirely cease to bind their feet no one will have anything to teach them in this connexion."—Ed.

NEWS AND COMMENT.

BIRTHS.

FLEMING.—On January 6th, 1916, to Dr. and Mrs. William Fleming, of Tsinanfu, a son.

RUSSELL.—On January 29th, 1916, at Red Cross Hospital, Shanghai, to Dr. and Mrs. W. B. Russell, of Soochow, a daughter (Mary Elizabeth).

SMITH.—On January 15th, 1916, to Dr. and Mrs. Dansy Smith, at Kuling, a son (Adrian Dansey).

YOUNG.—On January 29th, 1916, to Dr. and Mrs. E. M. Young, Hulan, Manchuria, a son (John Frederick).

DEATH.

BUTCHART.—At Nanking, on February 15th, 1916, Dr. J. Butchart, of the Foreign Christian Missionary Society, Luchowfu, An.

"He was a strong man, and his death is a great loss," Dr. Macklin.

The Union Medical College of Shantung Christian University held its graduation exercises in the College buildings in Tsinan on December 30th, 1915. Among those present were representatives of the Military and Civil Governors of the Province, Mr. J. T. Pratt, H. M. Consul, and a number of missionaries and Chinese. The Rev. J. E. Williams, D.D., of the Union College, Nanking, was specially invited and gave an eloquent address to the students.

The King of England has been pleased to confer the Military Cross on Temp. Lieutenant Bernard Score Browne, M.B., R. A. M. C., until the war a missionary physician in Ningpo of the Church Missionary Society. The services which won for him this decoration were as follows:—

"For conspicuous gallantry and devotion to duty near Vemelles. He spent the whole night of October 2nd/3rd searching for and carrying back wounded who were lying between our own and the enemy's lines, which were only 200 yards apart. The enemy was firing and the ground was lit up by flares.

"After daybreak he carried back three more men under a very heavy fire. At one time he tended the wounded within fifteen yards of the enemy's trenches. By his courage and ceaseless work all the wounded in his area were brought in,"

In a letter dated December 17th, 1915, Dr. Arthur F. Cole writes in a very interesting way of his recent experiences in Salonica, the vast yet orderly preparations on land and sea for the coming struggle making a 'mere civilian feel he has arrived at a different existence.'

FROM THE WAR FRONT.—"Oh the Psalms! What a comfort and stay they were through all that time! Composed by lonely and hunted men who had to face danger and death every day, they came home to me morning by morning as I awoke and looked forward to another day of war's inevitable terrors and risks. I got my message new from them for the men—the 23rd, the 121st, and the 91st Psalms especially. To live so near death is to know what reality is, what really matters, and that means to be brought very near to God. It was a great time." Edinburgh Medical Missionary Society Magazine.
Dr. C. Douglas Gray, the popular British Legation doctor, who did so much to make our Peking Conference a success, leaves for home about the end of this month, having been appointed major in the R. A. M. C. Congratulations will be extended by his many friends in Peking. It may be added that Mrs. Gray possesses the Royal Red Cross, the highest decoration awarded to a nurse.  

Dr. W. B. Russell of the Methodist Episcopal Mission, Soochow, has been given a medal of honor and made a life member of the National Red Cross Society of China, and has also been given the beautiful medal of honor issued by the Central China Famine Relief Committee for his work done in the two famines of four and five years ago.  

Dr. Preston Maxwell of Yungchun has been decorated recently by the Ministry of War at the direction of the President of the Chinese Republic, with the "Army and Navy Medal, first-class," as a token of appreciation of services rendered by him to Chinese soldiers.  

Dr. W. H. Park of Soochow, who came to China in 1882, has received the decoration of the "Golden Harvest," and President Yuan Shih-kai has also sent to him an Honorary Scroll with the inscription, "Benevolent Heart, Benevolent Art," (善 心 仁) in public recognition of his long service, medical, educational, and philanthropic, to the Chinese.  

Dr. Main, of Hangchow, has just received from General Chu Jui a donation of $500 towards the hospital funds which are very low just now on account of the funds from home being cut off by the War.  

Dr. and Mrs. Julian Pettit of the American Church Mission, arrived in Shanghai on January 11th, 1916. They went at once to Wusih where Dr. Pettit will take up his work in St. James Hospital,  

An epidemic of smallpox during the past two months has resulted in the death of several thousands of children in Lanchowfu.—Reuter.  

According to Dr. Peter, there are 535 Western-trained foreign doctors in China and 233 Western-trained Chinese physicians.  

Ex-President of the United States William Howard Taft has accepted the chairmanship of the central committee of the American National Red Cross Society.  

The central committee is the governing body of the Red Cross Society. It appoints the Executive Committee and its chairman is the presiding officer of that committee. He is also the executive manager and business head of the Society.  

**American Red Cross Society.** During 1915 the American Red Cross shipped 161 consignments of hospital and other relief supplies to Europe, the total weight of the shipments being about 4,000,000 pounds and their value more than $1,000,000. All the warring countries of Europe were included in the shipments, which in size and value were the greatest ever sent from a neutral country to nations at war.  

Among the larger items of these shipments were the following:  

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity and Description</th>
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<tbody>
<tr>
<td>Anaesthetics, lbs.</td>
<td>49,789</td>
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<tr>
<td>Antiseptic tablets, lbs.</td>
<td>1,120,000</td>
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<tr>
<td>Bandages, 2,162,689, or lbs.</td>
<td>221,425</td>
</tr>
<tr>
<td>Cigarettes, (all donated)</td>
<td>10,372,750</td>
</tr>
<tr>
<td>Clothing for refugees, pieces</td>
<td>321,504</td>
</tr>
<tr>
<td>Cotton, lbs.</td>
<td>922,077</td>
</tr>
<tr>
<td>Hospital garments</td>
<td>341,591</td>
</tr>
<tr>
<td>Hospital linen, pieces</td>
<td>61,648</td>
</tr>
<tr>
<td>Motor trucks and ambulances</td>
<td>33</td>
</tr>
<tr>
<td>Supplies for sanitary commission, cases</td>
<td>5,506</td>
</tr>
<tr>
<td>Including sulphur, lbs.</td>
<td>358,983</td>
</tr>
<tr>
<td>Surgical dressings</td>
<td>7,769,941</td>
</tr>
<tr>
<td>Surgical gauze, yds.</td>
<td>7,767,795</td>
</tr>
</tbody>
</table>

**Status of Medical Missionaries in Korea.** All doctors who were in practice at the time the Medical Laws were promulgated, January 1st, 1914, were given physicians licenses limited in time to five years, and in territory to the province in which they lived. By a later law a general license was given to these same doctors unlimited as to time and territory. All physicians arriving after that date come under the new laws requiring an examination before receiving the license. The details have now been finally arranged by which these examinations may be taken in English in Tokyo twice a year, in April and September. All application papers for these examinations must be in the hands of the proper officials three months in advance i.e., in January or June. Dr. S. P. Tipton of Chung Ju, Korea, is the first to go through the routine and has recently received his license and permit to open his hospital. The lack of qualified English-speaking Japanese doctors in Korea has as yet hindered the giving of these examinations in that country.
The China Medical Journal.

but it is hoped that this may be remedied in the near future. Foreign nurses are expected to take in English the same examination for their licenses that Japanese and Korean candidates take in their respective languages. These examinations are held twice a year in Seoul. Dentists are not expected to take an examination but are given licenses without that formality. All who have taken the examinations speak of the uniform courtesy accorded them, and of the evident intent to be reasonable and fair.

THE STATUS OF MEDICAL MISSIONARIES IN INDIA. Recent legislative action in various parts of India has important bearings upon medical mission work. The Acts which have recently come into operation in Bombay, Madras and Bengal, and the Bill now before the Punjab Legislative Council are all upon similar lines. No attempt is made by them to limit the work of un-registered practitioners and therefore unqualified medical workers are still free to carry on medical mission work. Such institutions, however, as have not registered medical officers in charge, will ordinarily be unable in the future to obtain Government grants-in-aid, exception being made in the case of some non-qualified workers who have been for long periods engaged in work in a district. In these Acts as originally framed, medical missionaries holding foreign and colonial degrees were not in virtue of such degrees admissible to registration. In the Madras and Western India Councils steps have been or are now being taken to provide for the registration of medical missionaries holding such qualifications, who were already practising in India at the time of the passing of the Act, but new arrivals will be required to comply with the recognized tests before registration. The question of due representation of medical missionaries upon the various provincial Government Medical Councils is what needs to be borne in mind by the Provincial Medical Committees, the Madras Council being the only one which hitherto appointed a medical missionary upon its body. Medical Missions in India, January, 1916.

THE FORTUNE OF A NOSTRUM MAN. The estate of the late Mr. Eno, the proprietor of Eno's Fruit Salt, is valued at $8,000,000. This immense fortune has been made out of an aperient consisting of sodium bicarbonate, tartaric acid and citric acid, which is extensively advertised, though not in a very flagrant manner. It is claimed to be "health-giving, pleasant, cooling, refreshing, gentle and safe in its action," "keeps the blood pure." Mr. Eno left large sums to hospitals and other benevolent institutions. His fortune is by far the largest left by a nostrum man and the largest left by any "patent medicine" proprietor (as distinct from those combining therewith the manufacture of patent foods). Among these may be mentioned the following sums: Senator the Hon. George Taylor Fulford, proprietor of Dr. Williams' Pink Pills (a Canadian), $6,500,000; Mr. Alfred B. Scott, of Scott's Emulsion, $550,000; Mr. George Handyside, of Handyside's Consumption Cure, $750,000; Mr. Robert Dyer Comans, of Areca Nut Tooth Paste, $550,000; Mr. Walter Tom Owbridge, of Owbridge's Lung Tonic, $550,000; Mr. Thomas Beecham, of Beecham's Pills, $400,000.

JINYAN (仁丹). A couple of packages of this medicine, so widely advertised in China, having been sent by Dr. A. C. Selmon of Shanghai to the Chemical Laboratory of the American Medical Association for analysis, the following report was published:—

Qualitative tests indicated the absence of potent alkaloids, iron and other heavy metals, saline laxative salts, and emodin-bearing cathartics such as rhubarb, aloe or cascara in therapeutically effective amounts. Sugars were present in considerable quantities and the pills were highly aromatized, suggesting "breath perfumes" like "sen sea." A vegetable drug was present but was not identified. Physiologic experiments indicated that the pills possessed no material potency.

NOTICES.

UNION MEDICAL COLLEGE, PEKING. The Board of Trustees of the Union Medical College, Peking, has decided that no new students are to be received in 1916, pending the development of their scheme of reorganisation.

J. G. CORMACK, Principal.

UNCLAIMED COPIES OF C.M.J. Through an oversight 12 copies of the CHINA MEDICAL JOURNAL are held at the Presbyterian Mission Press awaiting instructions. Will the owner please advise the Mission Press. The dates of the above JOURNALS are as follows:—

1891,2-3-5-6-7-8 and 1900,4-5-10-11.