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MEDICAL EXPERIENCES IN SOUTHERN HUNAN.

(Concluded from November, 1911, issue).

By ERNEST C. PEAKE, M.B. (Edin.).

NERVOUS DISEASES.

We are apt to get somewhat rusty in nervous diseases out here, from want of practice. Nervous affections of one kind and another do, of course, exist among the Chinese, but my experience has been that they do not bulk largely in one’s practice. I have already referred to the striking absence of such conditions as Chorea, and also Locomotor ataxia.

Hemiplegia, on the other hand, is by no means infrequent in our region. I have seen quite a number of cases. What the cause of the cerebral haemorrhage may be I cannot say, but it seems to be one of the few evidences that we get of arterial degeneration. Or it may be that embolism or thrombosis, resulting from some obscure condition, is the primary cerebral lesion. I do not know what the hemiplegia is due to in these cases.

I should like in this connection to mention two cases of hemiplegia in children, who were both in my wards at the same time. The first case was that of a boy aged 10½ years, who came from a very miserable and destitute home. There was a history of periodical attacks of dizziness. On the 29th of the 1st moon, on rising in the morning he felt very giddy, but he took his food and rested about the house, feeling very weak. About 2 p.m., he suddenly fell, from the standing position, to the ground; but he remained conscious, and could speak when spoken to. The right arm was trembling and “8 parts paralysed”; the right leg was semi-paralysed. He was helped to rise, and with support he got back to his bed, dragging the right foot. For the first three days, urine and faeces were passed voluntarily, but
after the third day, he lost all control of defecation and micturition. On the sixth day he lost the power of speech. At nights he would suddenly call out, and have spasmodic clonic contractures of the right arm. All through he had remained intelligent, and could understand what was said to him, though mentally enfeebled. On admission to the hospital, nearly two weeks after the onset of the trouble, I found the child perfectly conscious, with right-sided hemiplegia and aphasia. He slowly opened his mouth and protruded the tongue, when told to do so. The tongue showed no deviation to one side. There was but little evidence of facial paralysis and temperature was sub-normal. The right arm was powerless, but the right leg could be moved a little with evident effort. Both arm and leg improved a good deal while he was with us, but when he left the hospital, after six weeks or two months' treatment, the forearm and wrist were still strongly flexed, with contracture of the fingers, and he was still aphasic.

I omitted to mention that the boy had also dysenteric symptoms, and prolapsus recti; and as for ascaris lumbricoides—the number of these creatures that he voided, day after day, from a single 2½ gr. dose of santonin, was perfectly astonishing.

I will not weary you with details of the second case, also a boy, and aged fourteen. He was a late case, the trouble having started eighteen months previously. Also right-sided. Diagnosis = Post-hemiplegia paralysis; the residual symptoms being—more or less pain and loss of power in right arm and leg, with marked hemiplegic gait, exaggerated knee-jerk, ankle-clonus, and mental enfeeblement.

I have mentioned these cases because they seem to me to be uncommon, and the etiology obscure. Osler remarks that hemiplegia in children over five years of age is rare, (only 10 in his 135 cases). He says that in cases coming on after the fifth year, haemorrhage seems to be the causal lesion; but he ventures no opinion as to the cause of the haemorrhage.

Epilepsy is, I should think, quite as common as it is at home; I'm inclined to think it is rather more so. Most of the cases are in children, or are of long-standing and date from childhood, but I had a case recently in a man of thirty-five, who had had nocturnal fits for fifteen months only. Epilepsy developing in an adult is probably in the majority of cases syphilitic in origin and due to a local lesion. The patient was put on K. I. as well as bromide, and had no more fits while he remained with us at the hospital.

One may occasionally have to deal with a case of hysteria, though, in my experience, not often. I had a marked case not long
ago in one of the school girls in our boarding-school. Not only was there great depression of spirits, with much weeping, subjective sensations of painful pressure on the top of the head and so on, but she had also prolonged retention of urine. Those in charge were much concerned on the girl’s account, and I was asked what was to be done to relieve the retention. I did not wish to pass a catheter, and I found that the simple device of giving her a good dose of magnesium sulphate answered perfectly well. With the action of the bowels, the bladder sphincter relaxed, and urine was involuntarily passed.

Tumours of the Brain are rare. Cerebral abscess I have not met with, although suppurative conditions of the middle ear and mastoid abscess are common enough. I do not remember ever to have seen a case of hydrocephalus in a Chinese infant.

Insanity. One is struck with the relative infrequency of insanity among the Chinese, compared with Western peoples. It is well-known that alcoholism is accountable for a very large percentage of the cases of insanity at home, and as the Chinese are not addicted to the abuse of alcohol, I think it is safe to deduct the inference that this fact goes a long way to explain the comparative infrequency of insanity among this people. The few instances of insanity that I have met with have for the most part been maniacal in type. One case was that of a woman in the hospital with tubercular glands of the neck. Though breathing perfectly freely, she suddenly developed the notion that she was choking to death, and became wildly maniacal from fear. With her fingers she tore frantically at the ulcerated glands in her neck, till the haemorrhage became alarming, all the time yelling that she was going to die. We had to restrain her by main force, send for her people, and march her off the premises. In another case, also a woman, the patient had periodically recurring attacks of simple mania, becoming at such times noisy and incoherent, and talking rubbish. I remember also the case of a man who became violently maniacal in the compound; but I cannot remember meeting with cases of melancholia, or other forms of mental disease, though I doubt not that they exist.

Endemic and Epidemic Diseases.

Malaria. The forms of malaria met with in the Hengchow region (and I suspect over the most of the Southern half of Hunan) are the benign-tertian and quartan. The parasites of these two infections, stained by Leishman’s method or otherwise, one can readily demonstrate in the blood, but the parasite of the malignant or sub-
tertian variety I have never yet found. Logan formerly reported a very widespread and fatal epidemic of sub-tertian malaria, which swept through Northern Hunan in the summer of 1906, said to have been carried thither by famine refugees from the province of Hupeh. Though benign-tertian and quartan are the only forms of the disease that I have seen in Hunan, yet they are very prevalent and the cause of a great deal of suffering all the year round. I find that fourteen per cent. of my out-patients are cases of malaria, the quartan infections being more than twice as numerous as the tertian. On the other hand, Dr. Lewis tells me that in and around Ch'enchow, (a district about 100 miles to the S. E. of us), the tertian type is by far the most common; while Hadden reports that in Yungchow, a city about 120 miles to the South of Hengchow, malaria, in any shape or form, is practically unknown. He says that *anopheles* are rare in his locality. I have seen one case of *malarial amblyopia*, in a boy of ten, coming on in three days after exceptionally severe and protracted attacks of malaria. *Blackwater-fever* I have never seen.

*Dysentery* in both its acute and chronic forms is exceedingly common. I should judge from what I have seen of the disease, and from microscopical examinations made of dysenteric stools, that the disease is mainly amoebic in type, though I am not in a position to say that dysentery of bacterial origin does not also exist. Although endemic at all times, the disease, in a virulent form, seems at times to take on epidemic characters, especially, I think, in the autumn months. I have noticed this at Hengchow, and Dr. Hadden of Yungchow reports a very severe epidemic in the summer of 1910, “whole households,” he says, “dying of it in a few days.” Although dysentery is so common, *liver abscess* is exceedingly rare. I have never seen a case. Hayward, however, of Paoking, had one case which burst into the pleural cavity.

*Cholera* visits us from time to time, in the summer months, in the form of severe epidemics. It cannot be predicted, from year to year, whether the dreaded scourge is to come or not. Doubtless the same might be said of any other town or district in the Empire, for I suppose there is no city or district in China which can claim exemption from this disease.

*Small-pox*, is endemic with us, of course, breaking out in periodic epidemics. *Measles* we have occasionally, and *mumps* are very common.

*Epidemic cerebro-spinal meningitis*, I have seen; and in the Autumn of 1910 we had a very virulent epidemic of *diphtheria*.
Medical Experiences in Southern Hunan.

Typhus. I cannot say whether this disease exists in our district or not; I suppose it does, but I do not remember to have ever with certainty diagnosed it.

Typhoid we have, not, however, occurring in epidemics such as we are familiar with at home, but in sporadic cases here and there.

Relapsing fever also we have. I was called one day in the height of the summer to see a school-boy of about ten, who was lying very ill at the C. I. M. premises at Hengchow. On arrival I found the boy lying in the middle of the floor, in a high fever, breaking rapidly, and presenting a clinical picture in every way highly suggestive of acute pneumonia. The diagnosis of pneumonia seemed to be confirmed when on percussing the chest distinct dullness was elicited. However, as I had brought a glass slide or two, I took smears of the boy's blood home with me, and was surprised to find on examining the blood microscopically that it was full of spirochaeta recurrentis, the causal organism of relapsing fever. I mention this case particularly because of the close clinical resemblance which it bore to acute lobar pneumonia, even to the lung consolidation, and hence the need for great caution in arriving at a definite diagnosis in such cases without an appeal to the microscope.

Leprosy cannot be said to be common in South Hunan. Cases do, however, present themselves from time to time in the out-patient clinic. All the cases that I have seen have been of quite a mild type. I have never, in this region, seen the repulsive and mutilated specimens seen in other parts.

Beri-beri. I can only remember to have had one undoubted case of beri-beri in the hospital. The disease is unquestionably scarce in Hunan. Hadden reports that he has noticed it in street-beggars in Yangchow.

Elephantiasis is also decidedly rare, but it does exist, and as to filariasis I have never met with a case, though it must be confessed that I have not stained and examined a sufficient number of thick blood-films to make this negative result of much value. As elephantiasis exists, I believe that filariasis exists also, though the percentage of the population infected must be very small.

Tetanus one case. Madura-foot one or two very suspicious cases, but no opportunity to make microscopical examination.

Gunodou, one suspicious case, (see photo). The patient, a man of thirty-three, states that three years ago the nose began to swell, and has very slowly progressed ever since. He has daily to get rid of nasty bloody scabs from within the nose, hawking them out via the
naso-pharynx. He has never seen anyone else with this trouble. On examination, the bony enlargement could be felt to be an hypertrophy of the nasal processes of the superior maxillary bones. Is this Goundou, or what is it?

The following affections I have never seen in our region:—Plague, Malta-fever, dengue, sprue. Kala-azar, if present, is rare. I think I have seen a case recently, but I am not in a position to speak with confidence on this point, as no search was made for the Leishman-Donovan body.

**HELMINTHIASIS.**

With the idea of ascertaining to what extent verminous infections were prevalent among the general population, I examined microscopically the stools of 150 consecutive and entirely unselected cases coming to the hospital. The result showed that 137 out of the 150 harboured intestinal parasites. I append here a table giving the findings in detail.

Examination of the stools of 150 unselected cases for evidence of verminous infection.

<table>
<thead>
<tr>
<th>WORM</th>
<th>TOTAL CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ascaris lumbricoides</td>
<td>125</td>
<td>83.3 %</td>
</tr>
<tr>
<td>2. Trichocephalus dispar</td>
<td>72</td>
<td>48 %</td>
</tr>
<tr>
<td>3. Ankylostomum duodenale</td>
<td>50</td>
<td>33.3 %</td>
</tr>
<tr>
<td>4. Oxyuris vermicularis</td>
<td>2</td>
<td>1.3 %</td>
</tr>
<tr>
<td>One or more of the above</td>
<td>137</td>
<td>91.3 %</td>
</tr>
</tbody>
</table>

I am quite sure that the percentage in both Nos 2 and 3 in the above table is understated, as eggs are scarce in some specimens and can only be found on repeated examination. I very seldom made more than the rapid examination of one slide. There is no doubt for example that well over half the population of our district harbour the whip-worm.

In regard to ankylostomum, it should be stated that the above result is obtained from the indiscriminate examination of both town
and country folk. The fact is, the percentage of city people infected is considerably lower than the above, thirty-three per cent, while that of country folk is much higher. Nearly all the agricultural population in the district seem to be infected by hookworm. The majority of these show no evident symptoms of infection, but a small minority are rendered profoundly anaemic, and may be seriously ill.

With regard to the treatment of *Ankylostomiasis*, I am inclined to think that the danger of such substances as thymol and eucalyptus oil is through their action on the kidneys. I remember distinctly the case of a man in my wards whose appearance was highly suggestive both of chronic kidney trouble and of ankylostomiasis. I examined the faeces, found ova, and so thought I had got to the root of the matter. Eucalyptus oil was given, and the next day a condition of acute nephritis was present, with pronounced anasarca. There was probably chronic kidney trouble to begin with, and the eucalyptus, acting as an irritant, had caused a flare-up of the pre-existent inflammation. If the kidneys are healthy there does not seem to be much danger—but in doubtful cases it would seem a wise precaution first to examine the urine before administering such powerful anthelmintics as thymol and eucalyptus oil.

The only trematode worm that I have encountered in Hunan is *Schistosomum japonicum*. I have not tabulated it with the foregoing, as the object of the systematic examinations was to find out the percentage of infection of the general population with the commoner worms—and the cases of infection by *S. japonicum* all come from one endemic focus, a river-side place called 自水 (Peh-shui) some fifty miles South of Hengchow. The symptoms of this affection are mainly those of portal obstruction which is brought about by the blocking of the terminals of the portal vein in the liver, by the ova of the parasite.

As to the surgical conditions met with in our part of China, they are much the same as those met with in other parts, and it would be wearisome to enumerate. Nearly all kinds of surgical conditions are represented, but there are a few which are strangely absent or infrequent. Among these I would mention appendicitis, which we meet with among Europeans in China not infrequently, and yet practically never in the Chinese. I have never diagnosed the affection among them, nor have any of the other medical men in the province with whom I have consulted. Hadden has seen four cases in Europeans in Yungchow (where there are but a handful of foreigners), but none in natives. Then there is hepatic abscess, of which I have never seen a case in Chinese, though I know others have met with them occasion-
ally. Also the surgical condition known as varicocele, though why this should be so rare I know not. I have seen but one case of varicocele since I came to China. The man came into hospital, and I operated in the usual manner by cutting down on the cord, and tying and dividing the very much dilated veins. Vesical calculus is not common in our district, indeed it is distinctly rare, but it gradually becomes more common the further South one goes. Hadden sees a good deal of the trouble in Yungchow, and when we get over the border into the Canton province the affection becomes very common indeed.

By way of summing up the case-incidence and in order to get an idea of the percentage composition of an average daily clinic, I analysed 1,000 consecutive cases taken at random from the out-patient register. The results worked out as follows:

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the Eye</td>
<td>22.5%</td>
</tr>
<tr>
<td>Diseases of the Skin, leg ulcers, etc.</td>
<td>19%</td>
</tr>
<tr>
<td>Malaria</td>
<td>14%</td>
</tr>
<tr>
<td>Gastric and Intestinal affections</td>
<td>7.5%</td>
</tr>
<tr>
<td>Diseases of Bones and Joints</td>
<td>6%</td>
</tr>
<tr>
<td>Venereal diseases</td>
<td>6%</td>
</tr>
<tr>
<td>Diseases of Respiratory System</td>
<td>5%</td>
</tr>
<tr>
<td>All other cases (Surgical, gynecological, nervous, etc.)</td>
<td>20%</td>
</tr>
</tbody>
</table>

100%

CONCLUSION.

In reviewing the incidence of disease in one part of the world, (and I think the same will apply to China generally), one is struck perhaps more by the absence of certain affections than by the prevalence of others. Among the diseases conspicuous by their scarcity or total absence, I might mention the following:

- Acute rheumatic fever
- Chorea
- Appendicitis
- Liver abscess
- Gout
- Rickets
- Diabetes mellitus
- Kidney affections generally
- Sprue
- Mental diseases
- Tabes dorsalis
- Aneurism
- Arteritis

How are we to account for the striking infrequency of these affections? My humble meditations on the subject have led me to the conclusion that the Chinese owe their comparative immunity from these troubles very largely to the nature of their diet. Rice is their great stand-by at every meal, and in comparison with rice, all else that they take, (green vegetables, etc.), forms but an insignificant part of their food. Thus they depend mainly on carbo-hydrates, proteids entering but slightly into their dietary. On the other hand the diet of Westerners is a highly nitrogenous one, meal and proteids generally bulking
largely therein. We have also the additional factor of alcoholism to reckon with in the peoples of Western nations.

Let me take one or two of the above-mentioned diseases, and see if we can trace any connection between them and the excessive consumption of nitrogenous food-stuff.

Take Rheumatic-fever (and with this goes chorea). Among the causes generally given we have: (1). The effects of cold and damp. Well, we have plenty of this in China, at certain seasons of the year, and yet rheumatic fever is practically unknown. (2). The retention of waste products in the blood. The latter points to faulty diet. Perhaps more nitrogenous matter is taken than the system requires, throwing extra work on the kidneys. The kidneys, unable to cope with all the work required of them, there results an accumulation of waste products, (nitrogenous extractives and urea), in the blood, which may possibly determine an attack of acute rheumatic fever. The Chinese, with their carbohydrate diet, do not put this constant extra strain on the kidneys, there is more perfect elimination of waste products from the blood, and no tendency to rheumatic fever. This may account also for the diminished liability to kidney troubles that we notice in the Chinese. In this connection it would be interesting to ask, "what is the average output of urea and nitrogenous compounds in the Chinese, as determined by quantitative analysis of the urine? How does this differ from a Westerner? Is it much larger in the latter?" I think it will be found that the standard out-put of urea is higher in the European and American than it is in the Asiatic.

Then take appendicitis. I think a common view regarding the etiology of appendicitis is that local concretions (from inspissated fecal matter), or foreign bodies, become lodged in the appendix, thus injuring the mucosa and exciting an attack. Undoubtedly this sometimes happens, but I cannot think that this is the usual cause of the trouble. I suppose not one appendix in every ten that are removed will show a foreign body in its interior. Moreover if this were the main cause of appendicitis we surely would find the disease more frequently among the Chinese.

I think it is probable that here too, in the condition called appendicitis, we have an expression of imperfect elimination of waste products from the blood. This blood-poisoning, as we have seen, may give rise to acute rheumatic fever; it may also give rise to some forms of tonsillitis, so-called, "rheumatic tonsillitis"; and as it may excite inflammation of the lymphoid tissue of the tonsil, why not also that
of the appendix? On this line of reasoning we may trace appendicitis directly to a diet which is too rich in proteids, hence its comparative frequency among Western people, and its great infrequency among the Chinese.

Take Gout. "This," to quote Osler, "is a nutritional disorder, one factor of which is an excess of uric acid in the circulating blood . . . . the precise nature of the disturbance in metabolism is not known. There is probably defective oxidation of the food-stuffs, combined with imperfect elimination of the waste products of the body . . . . . alcohol is the most potent factor in the etiology of the disease."

Take also Tropical abscess of the liver. In a land where amoebic dysentery is so common, why do we not meet with cases of liver abscess among the people? The few cases we do come across are nearly always in foreigners. Here again it would appear that an over-generous diet, (especially in a country where such diet is contra-indicated), throws too great a strain on the internal organs.

Habitual over-rich diet, perhaps with over-indulgence in alcohol, means a degenerated liver, and a degenerated liver cannot cope with the _amoeba coli_, already present from a pre-existent dysentery.

Take again Diabetes. Without attempting to go into the complicated and obscure metabolic processes involved, if, for the reasons given above, a liver is below par, (and not the liver only, but also the pancreas and kidneys), its power for acting as a store-house of the excess of carbo-hydrates, may be seriously impaired, and a glycosuria, (that is diabetes), result.

Lastly, in regard to mental diseases, locomotor ataxia, arteritis, etc., the effect of alcohol (and also of gout and acute rheumatism) in causing tissue-degeneration and in predisposing to these troubles, has already been alluded to.

But I must hasten to bring this article, already too lengthy, to a close. I have tried to represent as faithfully as I can the morbid conditions, as I have observed them, in our part of China. Some, doubtless, will disagree with my philosophy, as their experiences may be widely different from mine. However, one can but draw inferences from the material at one's disposal. In any case, I trust that some of the points raised may lead to the appearance of further notes in the Journal, recording the experiences and opinions of others, so that we may get a wider knowledge of the distribution of disease in this country, and clearer light on some of the obscure problems which confront us in our medical practice among the Chinese.
CHINA MEDICAL MISSIONARY ASSOCIATION RESEARCH REPORT FOR 1911.

We have, alas, to begin this year's report with the usual grumble about lack of material. It does seem strange, with such a huge field to work in and such a varied programme to overtake, that only from one of the now numerous branches of the C. M. M. A. have we received a report of Research work. All honour to the South China Branch, but we do wish that a surgical operation could be invented with a higher percentage of successes for getting research reports out of Branch officers.

This report contains:

1. The Research report from the South China Branch.
2. A paper from Dr. H. S. Houghton on Balantidium infection.
3. Extracts from a letter from Dr. A. P. Laycock on the diseases of Kansu.
4. A letter accompanying a Tape-worm forwarded by Dr. W. T. Clark of Yunnan.
5. Note from a letter from the late Dr. Arthur Jackson of Mukden.
6. Brief note from Tainan Hospital.

The first paper—the report from the South China Branch—is of special interest as reporting cases—one at least severe—of balantidium infection. Unless we are mistaken this is the first report of disease caused by the parasite in China. Being quite ignorant ourselves on the subject we wrote to Dr. H. S. Houghton who very kindly consented to write a short paper on the subject and this is printed as the second item of our report.

Of peculiarly pathetic interest is the note on ankylostomiasis in Manchuria from my late friend, Dr. Arthur Jackson. The note is interesting in itself as confirming what some of us have long believed, viz., that the hookworm would be found to be fairly prevalent even in North China. We received the letter only a few days before Dr. Jackson's death, which, both as the removal of a personal friend and the closing of a career very promising in our special department of work, we deplore most deeply.

JAMES L. MAXWELL,
Tainan, Formosa.
To the South China Branch of the China Medical Missionary Association:—

Gentlemen:—

In behalf of the Committee on Research, I herewith submit the following report:

At the last meeting of your committee on Research it was decided that the Chairman should send a letter to physicians representing the various localities where medical work is being carried on in and about Canton, and request them to furnish as many statistics as practicable on their findings in the blood, faeces, etc. of patients coming to their hospitals or dispensaries and report the same to the Research Committee in order that a statistical report might be presented for the annual meeting of the association. Accordingly letters were sent to sixteen of the South China physicians on April 16th, 1911. This left but a short time for preparing statistics and I hope that another year we may have a much more complete report to offer to you.

Only three replies were received, but the first two deserve a great deal of credit. They were prepared by Dr. J. M. Wright of Tak-hing, assisted by Drs. Scott and McBurney and by Dr. Edward W. Kirk of Ko-tong in collaboration with his brother Dr. John Kirk. The third report was prepared by Drs. Cadbury and Li of the University Medical School.

EXAMINATION OF FECES.

In regard to the findings of ova in the stools the following table will explain itself. Probably in some cases ova might have been found by more thorough search. Dr. Kirk speaks of making, as a rule, two or more slide preparations, and states that in several instances ankylostoma ova were demonstrated only after sedimentation. The other two reports do not speak of what method was employed.

Under this head a few cases deserve especial mention:

Dr. Wright found but one case in which no intestinal ova were demonstrated. This patient was eighty-two years of age. Dr. Wright also says: "One of the ankylostoma cases was interesting in that he did not conform to the book description of such cases in discussing the clinical picture. Patient, male, sixty years old, confined to bed for thirteen months, skin dry and exfoliating. No oedema or anasarca.
Very anaemic and emaciated. Abdomen flat. Temperature normal. Dyspeptic and troubled with diarrhoea. Sometimes stools of a reddish tinge. Stools showed many ova of the _ankylostoma duodenale_. Blood count gave 2,220,000 reds. Hem. 30% (taken several days after treatment was commenced). Treatment eucalyptus oil, _nux vomica_, iron, quinine. The patient was in the hospital three months and took six doses of the eucalyptus oil. Patient now seems quite well."

STATISTICAL REPORT OF OVA FOUND IN FECES.

<table>
<thead>
<tr>
<th>Name of Parasite</th>
<th>Dr. Wright</th>
<th>Dr. Kirk</th>
<th>Drs. Cadbury and Li.</th>
<th>Totals</th>
<th>Per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ova found.</td>
<td>94 cases.</td>
<td>52 cases.</td>
<td>21 cases.</td>
<td>167 cases.</td>
<td>9.58%</td>
</tr>
<tr>
<td>Ascaris lumbricoides</td>
<td>79</td>
<td>42</td>
<td>11</td>
<td>132</td>
<td>79.04%</td>
</tr>
<tr>
<td>Tricocephalus Trichiuris</td>
<td>30</td>
<td>11</td>
<td>5</td>
<td>46</td>
<td>27.54%</td>
</tr>
<tr>
<td>Ankylostoma Duodenale</td>
<td>3</td>
<td>16</td>
<td>3</td>
<td>22</td>
<td>13.17%</td>
</tr>
<tr>
<td>Oxyurus Vermicularis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.6%</td>
</tr>
<tr>
<td>Fasciolopsis buski</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.6%</td>
</tr>
<tr>
<td>Schistosoma Japonicum</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.6%</td>
</tr>
<tr>
<td>Clenarchis Sinensis</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1.2%</td>
</tr>
<tr>
<td>Balantid. Coli.</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1.8%</td>
</tr>
<tr>
<td>Strongyloides Intestinalis</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>.6%</td>
</tr>
</tbody>
</table>

"Of the _balantidium coli_ cases two complained of stomach pain. The stools showed ova of _ascaris lumbricoides_ in great numbers. Santonin brought relief. The other case came in for dropsy, and urine was heavily loaded with albumen. In all, symptoms could be traced to the _balantidium coli_. Several other cases of _balantidium coli_ were seen but we did not know at that time what they were. Dr. Houghton gave us valuable suggestions and after studying carefully what literature we had, we were finally able to name them. To bring out the cilia and nucleus we used stains either of methylene blue, carbol fuchsin or gentian violet. By placing a drop of any of these solutions on glass and allowing it to slowly find its way under the cover glass, a good stain was secured (See Braun P. 121). All of the cases of _balantidium coli_ were men. Of the hookworm cases two were men, sixty and forty years of age respectively, and one was a girl, fifteen years of age. The _fasc. buski_ case was a man, aged forty-one years, farmer; and complained of indigestion, diarrhoea at times, large abdomen,
debility, anaemia, poorly nourished. Ova fairly plentiful in stool. Treatment: same as for *ankylostoma*. Patient went up the street shortly after taking medicine and on returning reported movement in which were several worms dark and about the size of his little finger. He was offered a dollar to go and bring some of them. He went but said as the latrine was a public one and deep he could not recover any specimens. Patient left for home before another treatment could be given and has sent in several of his neighbors for treatment who say he is in good health."

"The *Schistosoma Japonicum* case was a boy of fourteen. Home on river bank and father a farmer. Complained of fever and stomach-ache. Abdomen enlarged, feet swollen, at times a diarrhoea with blood in movements. He was given calomel and quinine and advised to stay in hospital, but said he must return home. He was told to return next day with specimen of stool which he did. Returned third day for more medicine and said he was much better. Did not return again but father came to say his son was entirely well. We expect to hear from this case again. The *clonorchis* case only stayed one day and it being one of our busy days we failed to get a history."

Drs. Cadbury and Li present the table opposite, of nine cases which remained in the hospital for treatment and in whom a history was obtained.

**BLOOD FINDINGS.**

In regard to blood findings Dr. Wright reports sixty cases examined for malarial parasites, twenty of which showed the *plasmodium*. In one of these the benign tertian parasite was found, while in nineteen the organism was of the malignant type. In four out of twenty cases examined the *lepra bacillus* was found. In two cases of tuberculosis the sputum was examined and the *tubercle bacillus* was found in one case.

Dr. Edward Kirk reports: "You ask about the examination of blood. I have confined these cases to obvious anemias or other conditions (such as *ankylostoma* infections) which made a knowledge of blood condition important. In such infections most of the cases showed a normal count and having no symptoms of breathlessness or discomfort could not be classed as *ankylostomiasis*. On the other hand severe anemias were common. I give two examples:—

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Case 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reds</td>
<td>1,800,000</td>
</tr>
<tr>
<td>Hem.</td>
<td>30%</td>
</tr>
<tr>
<td>Whites</td>
<td>4,500</td>
</tr>
</tbody>
</table>

*Eosinophilia* was practically always present. 21% and 18% being the two highest numbers.
<table>
<thead>
<tr>
<th>Initial of Case</th>
<th>Age</th>
<th>Sex</th>
<th>Trade</th>
<th>Chief Complication</th>
<th>Varieties of ova found in stools</th>
<th>Parasites recovered from stool</th>
<th>Treatment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. F.</td>
<td>10</td>
<td>Female</td>
<td>Student</td>
<td>Lobar Pneumonia.</td>
<td>Ascaris lumbricoides.</td>
<td>Many ascaris worms.</td>
<td>Santonin and calomel</td>
<td>Recovered</td>
</tr>
<tr>
<td>U. H. H.</td>
<td>10</td>
<td>Female</td>
<td>Student</td>
<td>Fever, constipation.</td>
<td>Ascaris and Trichuris.</td>
<td>Five large ascaris worms.</td>
<td>Calomel and Santonin</td>
<td>Recovered</td>
</tr>
</tbody>
</table>
Splenomegaly was only present in complicated cases. The commonest being malarial cachexia.

One of the most interesting cases of this kind was the following:

Man, Sing Wong. Aged. 27.

On admission: breathless, anaemic, weak. Spleen extends to one inch from umbilicus. Abundant ova of ascaris and ankylostoma. Duration, several years.

Treatment: 1. Regular course of quinine. 2. Several successive treatments with B-Napthol. (30 grains divided into two doses preceded and followed by appropriate cathartics). 3. Course of potassium iodide. Result:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>March 8th</td>
<td>4,600,000</td>
<td>18,000</td>
<td>60%</td>
<td>abundant</td>
<td>absent</td>
<td>Breathless, weak</td>
</tr>
<tr>
<td>March 30th</td>
<td>5,800,000</td>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
<td>Much improved</td>
</tr>
<tr>
<td>June 12th</td>
<td>5,000,000</td>
<td>8,125</td>
<td></td>
<td></td>
<td></td>
<td>Feels well</td>
</tr>
<tr>
<td>June 20th</td>
<td>8,125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On sedimentation An y osoma abundant absent one or two ova of ankylostoma found. General condition. Breathless, weak. Much improved. Feels well. Spleen gradually returned to normal size.

Another interesting case came to the dispensary with history of having been delivered of healthy child five days previously. It was said that since then fever had developed and that there was an offensive vaginal discharge. Examination proved the uterus partly involuted and the os soft and about the size one would have expected. No appearance of discharge. On the supposition that fever might be due to general condition, blood was examined, and some rosette forms of malarial parasites revealed the cause of trouble. Treat: Temperature fell shortly afterwards, and after course of quinine an uneventful recovery."

In addition to the above, a number of interesting cases of varying character have come under observation. Some of these may prove of interest to members of the Association. I quote again from Dr. Kirk's report:

"Another case of interest was one to which my brother, Dr. John Kirk, was called outside the hospital. Complaint, stiffness in the muscles of the neck. Spasms of pain and locked jaw. Patient and friend would give no history of an injury and no marks of cuts or abrasions could be found. After direct questioning relatives owned to patient having been pregnant, illegally operated on by a Chinese doctor when three months advanced. Vaginal examination revealed abundant yellow discharge, which, on staining, showed amongst many organisms the tetanus bacillus. Patient was curetted, but unfortunately,
owing to her friends and relatives who wished her left alone, the case had to be abandoned and soon had a fatal issue."

Dr. Kirk appends a selected list of medical cases which have visited the out-patient department of the hospital at Kotoug, taken from the Register for the past nine months:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis of middle turbinal</td>
<td>1</td>
</tr>
<tr>
<td>Tetanus</td>
<td>2</td>
</tr>
<tr>
<td>Retinitis pigmentosa</td>
<td>3</td>
</tr>
<tr>
<td>Paralysis agitans</td>
<td>1</td>
</tr>
<tr>
<td>Infantile hemiplegia (birth traumatism)</td>
<td>2</td>
</tr>
<tr>
<td>Transverse myelitis</td>
<td>1</td>
</tr>
<tr>
<td>Beri beri</td>
<td>4</td>
</tr>
<tr>
<td>Chyluria (microfilaria not found)</td>
<td>2</td>
</tr>
<tr>
<td>Banti's disease (leucopenia 1,875)</td>
<td>1</td>
</tr>
<tr>
<td>Leprosy</td>
<td>20</td>
</tr>
</tbody>
</table>

Surgical cases not included.

I shall close this report by giving the notes of a case of Friedrich's Ataxia complicated by vesical calculus, reported by Drs. Cadbury and Li:

"Yuen Tseng, age six, male. Residence a country village in Hohnam. Admitted to hospital of University Medical School, June 2nd, 1911.

Family history: Very difficult to elicit because of youth of child and ignorance of parents. Venereal disease denied.

Personal history: Shortly after birth parents noticed the convulsive or choreiform movements of the body which persist to the present time. There is little tendency to increase in this symptom. Has never been able to walk. Had smallpox at three. Two years ago symptoms of stone in bladder developed.

Physical examination. Head always turns to the left. Patient can use hands especially the left, but there is always an intentioned spasm which makes it difficult to grasp objects. Knee jerks absent. At times right hand is firmly contracted and patient uses the left to force the fingers apart. Tongue protruded with great difficulty. Mentality fair. Sleeps well at night. History of heredity not obtainable. There is entire inability to stand on the feet, which fail to coördinate properly. There was a decided Talipes equino-varus position of the feet. Babinski's sign was marked and there was curvature of the spine. In spite of the lack of a definite history of heredity a diagnosis of Friedrich's Ataxia was made from the following phenomena which were all present: Inability to speak, early development of disease, peculiar ataxic movements of the hands and arms, spinal curvature, loss of knee jerks, ataxia of the legs, with the club foot. Babinski reflex."
Several small calculi were removed from the bladder by the perineal route and the patient recovered from his urinary symptoms, but was discharged July third, with no change in the nervous condition.

W. W. Cadbury,
Chairman Research Com.

2. A PAPER FROM DR. H. S. HOUGHTON ON BALANTIDIUM INFECTION.

BALANTIDIUM COLI (Malmsten 1857).

TAXONOMY.

Sub-kingdom Protozoa.
Phylum I. Sarcodina.
Phylum II. Mastigophora.
Phylum III. Sporozoa.
Phylum IV. Infusoria (Ciliata, Ehrenberg).

Order 1.—Holotricha. Motile infusoria without special oral cilia.
Order 2.—Heterotricha. Motile infusoria with specialised oral cilia. (Man is parasitised by Balantidium and Nyctotherus.)
Order 3.—Hypotricha. Motile infusoria with well-developed dorsal and ventral surfaces. (Not parasitic in man.)
Order 4.—Peritricha. Sessile infusoria (Not parasitic in man.)

According to the table above given, it will be seen that Balantidium is referred to the organisms highest in the scale of protozoal forms. The infusoria may be defined as protozoans in which the organelles of locomotion are cilia, and in which the nuclear apparatus is differentiated, typically, into a vegetative macronucleus and a generative micronucleus.

Of the infusorian parasites of man, which are not many, balantidium coli is the best known, and on account of its pathogenicity, the most important.

MORPHOLOGY.

Balantidium coli is oval in shape, 60-100 microns long, and 50-70 microns in breadth. Anteriorly, there is a funnel-shaped oral aperture (cytostome), slightly to one side of the longitudinal axis, extending obliquely to the rear for about one-fourth of the body length. This oral depression is surrounded by strong cilia of a special type (cirri), about twice the length of those covering the rest of the body. Not only do these cilia create an active current of the surrounding fluid toward the cytostome, but there is, in addition, considerable mobility in the cytostome itself, so that in the act of feeding, the organelle becomes
larger, shallower, and triangular in shape. The animals may sometimes be seen creeping about on their expanded mouthparts, as snails do on their feet, without any change in the position of the body\(^1\). The cytostome opens through a short gullet directly into the medullary part of the body, the endosarc.

The body is enclosed by a pellicle, a cuticular thickening of the ectosarc, through which project the cilia. Except for the adoral cirri, the cilia are distributed over the body in longitudinal rows, giving a striated appearance to the organism. Some authorities state, however, that the cilia cover the body uniformly, assuming that the striations are modifications of the cuticle, perhaps muscular or skeletal in function (myonemes)\(^2\). Posteriorly, there is a small anal aperture, the cytopyge, which is difficult to see save during the excretory act.

Within, the organism has a sharply defined ecto- and endo-sarc, the outer layer clear, the inner finely granular and containing the nuclear apparatus and two contractile vacuoles. The endosarc only is concerned with digestive and excretory processes, and in its substance are seen the various things that make up the animal's food—red blood cells, starch granules, globules of fat, leucocytes, and the like. The macronucleus is large, pale, and kidney-shaped or oval; the micronucleus is much smaller, globular, highly refractile, and closely applied to the large nuclear body. It is difficult to see in the fresh specimen; so great an authority as Leuckart stated that he had never seen it (1886). The vacuoles, which are constant in number for this species, subserves probably respiratory and circulatory activities.

Reproduction is carried on in two, and possibly three, ways;

(A). Binary fission.—This, the vegetative, is the usual form of multiplication, and is simple division transverse to the morphologically longitudinal axis of the body. It is preceded by division of the vacuoles, direct division of the macronucleus, and simple mitosis of the micronucleus. This mode of multiplication in balantidium has been treated in great detail by Leuckart\(^3\).

(B). Conjugation.—As with most other unicellular forms, a conjugatory or sexual cycle is interpolated when vegetative reproduction is failing, or is, for any other reason, in abeyance. As it is essentially the same for all infusoria, the following general schema of the mechanism of sexual multiplication in infusorians (after Minchin\(^4\)) will be helpful:

In sexual reproduction the sequence of events is as follows:—

(1). There is a degeneration (and ultimate absorption) of the macronucleus.
(2). The micronucleus of each gamete (i.e., conjugating organism) divides into four, of which three degenerate; the one remaining now divides into two equal parts—the pronuclei—one of which, the passive or female pronucleus, remains stationary, while

(3). The male pronucleus passes to the body of the other organism and fuses with its female pronucleus. If the gametes have remained distinct, if, that is, there has not been a fusion of their bodies, they now separate, and this completes actual conjugation. If they have fused, the whole process is carried out in the combined large body.

(4). The product of the fusion of the male and female pronuclei, known as the synkaryon, now divides into two daughter nuclei, of which one increases rapidly in size to form a new macronucleus, the other remains small and is the micronucleus.

From this point, a rejuvenated vegetative cycle is taken up with great activity.

(C). Encystment takes place as a protective measure against desiccation or other unfavorable surroundings, and indirectly as a means of spreading from host to host. It was pointed out by Leuckart that delicate infusoria like this could not survive passage through a normal stomach, and that for invasion they must depend upon some protective capsule; and was shown experimentally by a complete failure to infect dogs by means of feeding fresh feces, whilst they could be readily infected by dried fecal material in which were the cysts of balantidium. Shortly after being passed with the feces, encystment takes place, and the encapsulated individuals are able to resist unfavoring conditions for an indefinite time. Though it has not been observed of balantidium, to my knowledge, it is quite likely that multiplication by sporulation may take place within the capsule, as it is common among other infusorians of this group.

HISTORY AND CLINICAL IMPORTANCE.

It is probable that this organism was first mentioned by the pioneer in unicellular zoology, Loewenhoek, in 1722, but the first to call attention to it, as a parasite of man, was Malmsten, in 1857. From that time on occasional cases of infection were reported, largely from Russia, from Norway, and eastern Germany. Strong, in 1904, making a detailed study of its presence and pathogenicity in the Philippine Islands, was able to collect 127 cases from the literature up to that time. The distribution of the parasite seems to be general; its presence has been reported from Europe, America, most tropical regions, and the Orient. Its importance as a parasite of man has probably been underestimated.
It is very generally held that the normal host of *balantidium* is the pig, and that man is only the occasional host. This, however, is denied by a recent authority, who contends that the form infecting swine is a distinct one. Nothing certain is known, therefore, as to the method of infection in man.

Infections with *balantidium* are most always associated with more or less serious intestinal symptoms, and it has come to be generally accepted that the parasite is a causal factor in varying degrees of catarrhal inflammation, if not actual ulceration, of the bowel. In a case reported by Dehio, the whole course of a fatal infection was six weeks, and autopsy showed diphtheritic lesions of the bowel, with numerous *balantidia* in the mucosa. While it is apparent that the principal effect of the parasite is irritation set up locally on the bowel wall, numerous cases have been reported wherein *balantidia* have been found in other parts of the body; thus Manson speaks of seeing them in the expectorated pus from a liver abscess which had ruptured through into the lung, Klimenko states that they may invade the intestinal wall, enter the blood vessels and occasionally cause emboli to distant organs, and Bowman has found the parasites in the mesocolic lymph glands as well as in the ulcerated walls of the large intestine.

Cases like the foregoing are all, of course, the results of massive infections. Occasionally cases are met with in which there is a diarrhoea associated with the presence of these organisms, but in which they are apparently a negligible factor pathologically, as they die out spontaneously in the course of time—much as is the case with the metazoan *strongyloides intestinalis*, which is not uncommon as a parasite, but rare as a definite cause of intestinal disease. It may be that in a perfectly healthy bowel no harm results from the presence of the *balantidia*, but with some antecedent morbific condition a better growing-environment is provided, and they increase at the expense of the host. It is known that the organisms are seen, though sparsely, in almost every very large series of routine examinations, in cases which give no suggestion, clinically, of their presence.

REFERENCES.

3. EXTRACTS FROM A LETTER FROM DR. A. P. LAYCOCK
ON THE DISEASES OF KANSU PROVINCE,
DATED 10TH JULY, 1911.

Writing first on the subject of *Ankylostomiasis*, Dr. Laycock
expresses the opinion that the disease is not endemic in the province
of Kansu but that cases are not rarely imported from Szechuan pro­
vince. Dr. Laycock then proceeds:—

"Secondly as to *Leprosy*. For some time I could get no reliable
information at all. But recently I have obtained indisputable evidence
that it does occur, is endemic, in one area at least in the west of
Kansu, south-west of Lanchow and close to the Thibetan border. A
patient called one morning and asked if I could do anything for a
certain disease with which two of the members of his family were
affected. He had not brought them because, he said, the Chinese
would not admit them to inns and disliked any contact with them.
From the description he then gave I concluded that the disease in
question was almost certainly leprosy. He said that very many in his
district were affected and those who suffered most were Thibetans—
they were more severely affected than Chinese. A few days later I got
a letter from an American Missionary who has just started work and
opened a station at Knei, a few days south of Sinningfu and in this
same district. He assures me that leprosy claims many victims in this
district among Thibetans, and some among Chinese, and he adds that he
and his family have been cautioned while there not to purchase eggs
from the Thibetans. Some of the Chinese, he says, who are able to
look after their lepers, put them in ward in a separate building, while
other lepers are at large. The Thibetans, however, drive them from
their villages."

4. A LETTER ACCOMPANYING A TAPE-WORM FOR­
WARDED BY DR. W. T. CLARK OF YUNNAN.

The tape-worm was examined by us and found to be a specimen
of *taenia solium*. The accompanying letter giving interesting informa­
tion about the distribution of these worms we print in its entirety:—

DEAR DR. MAXWELL: Just before leaving Yunnanfu I sent you a
specimen of a tape-worm. The worm was sent to me by a patient who
lived at Longchangfu, eight days west of Tali; and I thought it might
be of interest to you as showing that this cestode is found in other
parts of Yunnan, as well as in the district where I was stationed. The
patient had had tape-worm for some years and as she had never been
away from Longchangfu there must have been other cases in the city. It may be interesting to you to know that this woman's husband's brother, who is a member of the church at Tali, had had tape-worm for several years when I went to Tali in 1904, and I treated him for it. In Tali I saw quite a number of cases and I met several who were so unconcerned about the presence of the worm in their intestines that they preferred to leave it there rather than pay a few cash to get the medicine. Over and over again I met patients with symptoms of some obscure disease, and the peculiar thing was that they never seemed to associate the presence of the worm with their discomfort. After a lot of questioning I would finally be able to draw forth the admission that they had been passing segments of tape-worm for a long time. It seems to me that the indifference of the people to its presence is a proof that it must have been fairly common throughout the district.

Yours sincerely,

W. T. Clark.

5. NOTE FROM A LETTER FROM THE LATE DR. ARTHUR JACKSON OF MUKDEN.

Of course at present my chief work is the study of the language . . . I do a little work in the Hospital just to keep my hand in. I notice from your articles in the C. M. J. that Manchuria has not given you much help in your investigations regarding intestinal parasites. We hope to make good the deficiency: there is ankylostomiasis up here all right; we have a case in hospital at present whose faeces are full of eggs. I have not, however, managed to get hold of a worm to fix the species.

6. BRIEF NOTE FROM THE TAINAN HOSPITAL, FORMOSA.

We have little to report this year of special interest. The stools of our patients, numbering nearly 2,700 this year, are practically all systematically examined on admission for the ova of parasites. The result has done little more than confirm our previous conclusions. The one exception to this is the discovery of two more specimens of Fasciolopsis Buski—the one a typical specimen, the other somewhat atypical in shape and appearance. Both worms appeared to be alone in the intestines of their respective hosts and were discovered only on examination of the stools after anthelmintic treatment for ankylostoma. It is likely then that, as an occasional parasite, this worm has a very wide distribution.

J. L. M.
BLOOD COUNTS.*

R. A. P. Hill, M. B., D. P. H.

I did not know I had to read this paper until I saw it on the programme; so I have had to write it away from notes and books; this must be the excuse for any extra defects and errors in it.

Really to do justice to the subject would need three papers, one on technique, one on the blood and spleen diseases, and one on the blood in various pathological conditions. To-day I shall practically confine myself to this last, with a brief introduction dealing with one or two details of technique.

The blood count is not used nearly as often as it should be, and I think the reason is that most people overestimate its difficulty and laboriousness. With a very little practice a rough idea, quite enough for diagnostic purposes, may be obtained in fifteen minutes. To do this the following routine must be followed: First, take a blood film on two slides. Then pour on Wright's stain. Second, take a Talmquist haemoglobin reading. Then add the distilled water to the Wright's stain. Third, take the blood for the red cell count, shake for two or three minutes and put a drop on the slide. While this is settling, wash the film, dry and examine without a coverslip under a 40. Such an examination will be quite enough to reveal a marked eosinophilia or a marked excess of any one kind of cell. By this time the red cell count will have settled enough to count the white cells. In doing this, a Turck's modification, which costs no more than the ordinary slide, saves a great deal of time. It needs a mechanical stage. By the time a white count has been made the reds are sufficiently settled. Count four complete columns, of twenty squares each; count a column at a time vertically. It is quite easy. The sum of four columns multiplied by 10,000 gives the red count if the dilution of blood is 1 in 200. One column of normal blood should contain 125 cells.

If more care is required, other drops must be counted, the differential made with an oil immersion, and the haemoglobin estimated by a Haldane's Co-haemoglobinometer. Carbon monoxide is easily procured by heating oxalic and sulphuric acids together. It may be stored in big bottles and delivered as required by pouring in water through a funnel.

Two important cautions are needed:

*Read at P. T. H. Medical Association.
First, a Tallquist book is very handy and very useful for comparing one blood with another, or noting a patient’s progress, but its absolute readings are absolutely worthless unless standardised by comparison with a Co-haemoglobinometer. I used two constantly for six months, and standardised them both, and they differed widely and were both wrong in one or another part of the scale. They are rough indicators only.

Second, if films are made on slides, (cleaned with soap and water), the count must traverse them completely from end to end three or four times. In films on slides the large cells get drawn to one end and the small left behind. I have one such in which the proportion of lymphocytes at one end is about 50 per cent. and at the other there are 70 per cent. of eosinophiles. Counting right along the slide corrects this; and the true proportion is 20% lymphocytes, 36% eosinophiles. It shortens the work greatly if you carry the numbers of cells seen in your head, like pounds, shillings and pence, as long as possible before jotting them down, and contrive to run out at an exact number of hundreds. If you have made a short film and traversed it six or seven times, stopping in the middle will make little difference. It is only in the blood-diseases that extreme accuracy is required, and then chiefly for investigation rather than diagnosis; so that is enough about technique for our present purposes.

Now let us consider the significance in general of changes in the various cells. From these it is possible to foretell what will be the condition in various diseases, and thus often to get a hint from the blood count.

**RED CELLS.**

*Increased number,* unless accounted for by recent loss of fluid, (by vomiting, sweating, diarrhoea, tapping), usually means cyanosis, general, or local in the part whence the blood is taken. (The ear lobe is much the most convenient place).

*Diminished number,* occurs in most illnesses, and after haemorrhages; also if the diet is fluid, or if the vessels are much dilated, e.g., by massage. For this reason the ear should not be pulled about or washed with ether or alcohol before taking the blood.

Apart from the anaemias, the most important causes of rapid diminution of red cells are septicaemia or rheumatic fever. If a patient, who has had fever for a few days only, and has had no haemorrhages, and has no malaria, presents a red count below 4,000,000, it is always worth while to try at once the effect of large doses of salicylates, whatever the symptoms may be. Often such cases turn out to
be posterior pericarditis; pneumonic signs and infarctions may occur, and yet big salicylate doses may clear the whole thing up. A singular feature of two cases I have seen has been oedema of the face, without any albuminuria. It passed off in a few days in both and the patients recovered. Coming lately from England, where rheumatic fever is so common, I could not but notice the fact that while the post-rheumatic type of heart is common enough, the acute fever is rare in North Chihli; and it seems not impossible that the dry climate may prevent the articular symptoms, while the visceral disease may all the time be present unnoticed by the patient. If the salicylates fail, an early blood culture is indicated as a first step toward vaccine treatment. Staphylococcus septicaemias are comparatively very amenable to vaccine treatment, and even the stock vaccines of commerce are better than nothing.

THE HÆMOGLOBIN

Is of course diminished equally with the red cells in any condition dependent solely on loss or destruction of these, such as hæmorrhage. The Colour Index therefore is not altered immediately after hæmorrhage and but little in the early stages of rheumatic fever or septicaemia. In convalescence from these the cells recover faster than the pigment; consequently the colour index falls.

In the secondary anæmia of malnutrition, from whatever cause, the colour index is lowered, to about eight or even seven. The red count is moderately low in this condition, 4,000,000 or so, but the cells are apt to be small.

When this has lasted a long while, the blood picture of cachexia is produced. The red count varies from 3 ½ to 4 ½ million, the cells are small, normoblasts, and perhaps a few megaloblasts, are present, the colour index is low, even as low as seven, and the polymorphs are diminished unless some other cause be present to raise them.

This is in strong contrast to the picture of pernicious anæmias where the reds may be few, megaloblasts are common, and the index rises as the red count falls. The polymorphs suffer in this disease too.

The one disease that has a low index with a high count is chlorosis. An index of .5 with a count of 4½ million is common.

LEUCOCYTES.

With a few exceptions increase of leucocytes as a whole indicates toxæmia.

The chief exceptions are hæmorrhage, exercise (including fits of any kind), and neoplasms, all of which commonly cause increase of white cells.
The toxaemias which do not produce leucocytosis are typhoid, paratyphoid, tubercle, mumps, malaria, measles, Malta-fever, dysentery, and sometimes gout. Septicæmia very often has no leucocytosis; influenza usually produces leucopenia.

The toxaemia must be acute or grave; that is, it must be such as to constitute a stimulus; but it must not be too severe a stimulus, else the reaction may be aborted. Thus we find no leucocytosis in ordinary renal disease until uræmia is threatening. We find none in slight cases of pneumococcus infection, and none in fulminating cases.

The common form of leucocytosis is polymorphic, in which the increase is almost entirely due to increase of polymorphs; but there are two conditions in which all kinds are increased proportionally, as a rule. One is haemorrhage, after which the count may rise to 18,000 or so. The other is an important condition described by Leonard Rogers as presuppurative hepatitis. According to him hepatic abscess due to amœba is often preceded by a condition of hepatitis accompanied by leucocytosis in which the natural proportions are maintained. This condition, he says, if left alone passes on into hepatic abscess, with an ordinary polymorphic leucocytosis while it is acute. But if the ipecacuanha treatment be vigorously applied in this presuppurative stage, abscess is prevented and the hepatitis cured.

Among inflammations, those of serous membranes usually give the most, and mucous membranes the least, leucocytosis. Cystitis commonly gives none. Cholangitis gives a very high one. Meningitis, if generalised, always gives a leucocytosis, even when due to tuberculosis. Cerebral abscess on the other hand often gives low counts, 5,000 or 6,000. Sarcoma usually raises the count more than carcinoma. Innocent tumours, and tertiary syphilis usually have no leucocytosis.

A slight increase of lymphocytes is usually found accompanying ordinary polymorphic leucocytosis, but a true lymphocytosis occurs only in leukaemia and in whooping cough. In a case of whooping cough masked by broncho pneumonia, I have seen 90,000 leucocytes of which 64,000 were lymphocytes.

An apparent increase in lymphocytes is often seen, due really to a diminution of polymorphs. This is a totally different affair, and shows how all-important it is to give actual absolute numbers per cmm. and not percentages only.

Special variations in the types of mononuclear cell found are characteristic of malaria and of cholera.
MYELOCYTES.

Myelocytes appear in smallpox, chickenpox and some blood diseases.

The significance of eosinophilia will be easily understood if the functions of these cells, as demonstrated by Hardy and Kanthack, are kept in mind. According to these observers they have a sort of concrete opsonic action. They crawl over the organism and discharge their granules on it, and thus make it palatable for the phagocytes. Therefore in all probability a toxæmia stimulates their production, but they at once adjourn to any seat of irritation and discharge their granules there. As the infection subsides the over-production continues for a little, and they appear in the circulation in increased numbers. In consonance with this hypothesis we find that they disappear from the circulation early in nearly all fevers and inflammations, and their reappearance is a sign of approaching convalescence. (In scarlet fever they reappear much sooner than in any other fever, or may not disappear at all,—a point of diagnostic value). But we also find that when the cause of the toxæmia is inaccessible to the eosinophiles, as for instance in parasitic infections, gout, neuroses (such as asthma) and some skin diseases, the over-production occurs without the destruction, and eosinophilia is found in the circulation. In asthma, eosinophils are found in masses in the sputum, having evidently adjourned to the seat of the supposed infection and found nothing. It is said that eosinophilia is specially well marked in neuroses dependent on ovarian disorders.

This explanation, though incomplete, is a useful help to memory. Leucopenia is found in malnutrition from any cause, affecting chiefly the polymorphs; also in sundry blood diseases in some of which the polymorphs, in others the lymphocytes, suffer most. When lymphocytes have been destroyed or are being produced rapidly, the large forms become abundant; but for all ordinary purposes it is quite unnecessary to separate large from small in counting. A general impression as to the number of large forms present is quite enough.

Kala Azar in its late stage always has an extreme leucopenia. Other splenomegalic anaæmias have an equally severe leucopenia, but in kala azar the polymorphs are diminished quite out of proportion to the lymphopenia. With these general principles before us it is easy to see how the various factors in any given disease may influence the blood to produce a fairly characteristic picture. Let us just glance at a few of the more important conditions in which blood examination is likely to help. To help, I say, for we must not expect to diagnose by
Blood Counts.

Blood counts. They will often decide between two diagnoses, or suggest a third; they will very rarely diagnose.

One common mistake must be corrected. A high count does not mean suppuration. The suppuration counts lie usually between 16,000 and 22,000 or so. 25,000 and upwards should make us think of an alternative, such as pneumonia, cholangitis, typhilitis.

I will just rapidly run over the chief points in connection with head, chest, abdomen, joints, fevers, and conclude with a few hints of importance to surgeons.

Head. No leucocytosis, no generalized meningitis.

Moderate leucopenia suggests typhoid fever, or perhaps cerebral "influenza."

Considerable leucopenia suggests cerebral abscess.

Throat and neck. Leucocytosis with eosinophils—Scarlet fever.

Red cell anaemia with some leucocytosis—Rheumatic fever.

Swollen glands and no leucocytosis—Mumps, as against parotid abscess.

Chest. Signs with high leucocytosis and usually excess of red cells,—pneumonia.

Same with less leucocytosis, or a drop from a high one,—empyema.

Signs with little or no leucocytosis—tuberculous disease.

If this disease is affecting the lung, the red cells are often increased with a lowered colour index, the so-called pseudochlorosis.

Signs, especially at left base, with red cell anaemia and slight leucocytosis—rheumatism (perhaps with posterior pericarditis).

Abdomen. Stones may raise the count, whether through associated inflammation or simply as the result of acute pain.

A high white count, up to 28,000, with indefinite intestinal signs is by no means specially suggestive of appendicitis. Typhilitis may easily cause this. In the absence of localising signs one should rather think of diaphragmatic pleurisy with central pneumonia, or some liver affection.

No leucocytosis with pyuria indicates that the pelvis of the kidney is not septic.

Joints. Arthritis without any leucocytosis is often tuberculous. With acute anaemia it is rheumatic, rheumatoid or septicæmic. With eosinophilia it is gouty.

Fevers. Here the blood may often help. Leucocytosis excludes uncomplicated tubercle or typhoid. (I speak now of fevers with no localizing signs.) Acute anaemia means "rheumatism," septicæmia or malaria, unless haemorrhages have occurred.
As between typhoid, typhus, septicaemia and tubercle.

Septicaemia and typhus usually have some leucocytosis, tubercle none, typhoid some leucopenia. Typhus usually has an increased red count associated with cyanosis, septicaemia a diminished white count. Early pulmonary tubercle may show a raised red count, due to deficient aeration, but no leucocytosis. A high red count with a C. I. at .8 or .75 in a young girl should excite suspicion of tubercle.

Nearly all parasitic invasions show eosinophilia in the stage of invasion. Chronic worms and hydatid cysts do not produce it. Malarial blood parasites, etc., are seen while counting films. They do not cause eosinophilia.

I have not time to discuss the differential diagnosis of diarrhœas, in which great help may be gained; and it is unnecessary to dilate on the use of blood counts in diagnosis of tumours, but there are four miscellaneous points of importance to the surgeon, with which I will close.

1. In appendicitis, when the diagnosis is certain, a high count is not proof of suppuration. A very high count is, if anything, against it. But a low count, if steadily rising, is a great danger-signal unless the other signs unmistakeably point to improvement. I have twice "sat on" cases with 24,000 and over, and seen them recover; but 14,000, rising in two hours to 16,000 and then to 17,000 or 18,000 is a practically infallible sign of pus, unless the other signs are absolutely unequivocal.

2. In typhoid fever, any complications may raise the count, but a steady rise accompanied by signs of perforation makes that diagnosis practically certain. Thus, in a case of my own, signs of possible perforation occurred at 4 a.m. The count then was about 6,500 (I speak from memory). At six he seemed better and at ten he was much better, but his count was 12,000 or over. At 1 p.m., laparotomy was performed, a small bubble but no perforation found; but the thinnest-looking ulcers were sewn over. Peritonitis supervened and he died. At the postmortem a very small perforation was found that had evidently escaped notice, for it had not been sewn over with the ulcers. The only condition that could be mistaken for perforation is iliac thrombosis before oedema has begun.

3. If a patient has a palpable pyloric tumour and his blood still presents the normal increase of leucocytes after a big proteid meal, about 2,000 or so, that tumour is probably not malignant.

4. It is said that if a malignant growth be accompanied by leucocytosis, (as is very often the case), a return of the tumour after removal
is usually preceded by a return of the leukocytosis before the recurrence can be recognized by other examinations. The statements in this paper are mostly taken from Cabot's excellent book on clinical examination of the blood, but I have personally verified a good many of them.

I think I have said enough to show that blood examination is easy and useful. If it were done as a routine it would probably save many mistakes; and at least much valuable information would be acquired concerning the normal variations in different districts, as yet lacking. It is possible that the commonness of parasitic infections may upset the value of some findings, or there may be racial differences to be noted. If so, the sooner we find these out and can discount them the better.

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MEDICAL WORK IN YACHOW DISTRICT.

E. T. SHIELDS, M.D.

I have been asked to write a little regarding medical work in the Yachow district; any notes that I may make on this subject will be rambling and fragmentary, but I hope they will prove of some interest to the reader.

"The attitude of the people in general is friendly to the foreign doctor and to western medicine; medicine, I say, rather than surgery, for here there is the same lack of confidence and also timidity about submitting to operative procedure as are found in other places in China. Some severe surgical cases have been treated, however, and we believe our methods will gradually win their respect and trust.

From the late Dr. Brinton Corlies, who worked so faithfully here, the people have learned to use a number of foreign drugs; they come long distances to buy quinine, santonin, sulphur and zinc ointments, cod-liver oil and tincture of iron and evidently use them properly and with good results. Dr. Corlies also taught one of his assistants how to vaccinate for smallpox, and also how to inoculate a calf and produce the vaccine. For the past six years this man has made and distributed good vaccine, and many hundreds of people have been successfully vaccinated; as a result few cases of smallpox come to our notice, and only the smallest children are brought here to be vaccinated. I presume that in the past few years nearly all the adults who have not
had smallpox have been vaccinated, as a result of this modern method introduced by the foreign physician. Recently I took a country trip to an out-station fifty li distant and vaccinated forty children in one forenoon.

About the same kind of cases come here for dispensary treatment, I judge, as are found elsewhere in Szechuan. Skin diseases in abundance, itch, ulcers, etc., inflammation of the eyes, and tuberculosis, by far out-number other diseases. The latter—especially tuberculosis of the glands, lungs and bones, in the order named—is exceedingly common. Whether the damp rainy weather here especially predisposes them to this infection, or whether their lack of proper sanitary conditions and carelessness in treating those afflicted with this malady is the more active agency in spreading this disease, I am unable to say with certainty; but I suspect the climatic conditions are the less important of the two.

Hard obstetric cases, patients in a moribund condition from severe illness, are frequently met; and more than once the physician has not arrived at the bedside before the patient had breathed his last.

Opium suicides, broken bones and dislocations are frequently seen. A few cases of hook-worm disease have been suspected, but no microscopic examination being made, the diagnosis was not confirmed.

Typhus fever and typhoid are met with, and sometimes become epidemic; in the hot summer months the natives say many people die from what I judge is a severe dysentery or some complaint closely allied to cholera.

To one who has just recently come to China from our more healthful western countries, it would seem that here almost every woman and child he meets is a fit subject for treatment by a physician, so prevalent is disease, in one form or other.

These considerations make us stop and ask ourselves what is our mission to these needy people? Shall the Christian physician with high ideals and a thorough training in Western medical sciences be content year after year to pass out so many hundred boxes of sulphur ointment for curing the itch; shall he be content to count his work done when he has treated some thousands of cases, performed numbers of the most difficult operations; shall he do this, I say, and nothing more? Or does not the most urgent call from, and the most pressing need of the new China of to-day, resolve itself into this—as far as we medical men are concerned—the propagation of the principles of rational hygiene and modern sanitation in all its phases. To
Medical Work in Yachow District.

To do this we need to train men of broad minds and strong character who will be able not only to understand the essential principles of these subjects, and apply them themselves, but who will also be able to lead their fellow-men into the practice of these same principles. Such a programme is surely a herculean task, and one which will not be finished while we live. But surely it is worth our effort, time, and talents, and I believe only thus can permanency of our work and aims be assured.

To some of our mission doctors it has occurred that a practical working plan and one easy to use might be something along the following lines, viz., using our central mission stations and outstations as centres for the propagation of such truths as we have concerning health and disease, distribution of well-written short tracts on the every-day diseases from which these people suffer; the cause, prevention and treatment of the same; the training of evangelists along the line of personal hygiene, etc., in a short normal course similar to those now in vogue for Bible-study work. By having specially trained medical helpers, or the physician himself, from time to time give stereopticon or other illustrated lectures on the vital subjects of health and disease. By helping native men to adopt Western principles of sanitation in building, drainage, etc., as examples to their fellows. In fact, something on the order of Home University Extension Courses for the benefit of those who have not the privilege of the more fortunate ones in our schools.

These things may sound very theoretical and impossible, but I believe they are not. The example of two prominent men in the community, one who has built his new Chinese house, including many foreign features which make it such a wonderful improvement over his neighbors' buildings as to light, airiness, cleanliness and comfort; and the other who has successfully made and distributed good vaccine for the past four years; these examples, stimulated by the foreigner's influence, are only an earnest of what we may hope for and expect if we do our work faithfully and with a clear conception and plan of our high calling and tremendous opportunity as missionary physicians.

If these few remarks will stimulate thought along such important lines and provoke discussion which shall be productive of a practical solution of the problem we are now facing, the writer will feel most thankful for the personal help received and for any benefit which may accrue to others similarly situated.—The West China Missionary News.
MODERN HOSPITALS FOR CHINESE BY CHINESE.

J. J. MULLOWNEY, M.D.

Prince Ching, the recently appointed Premier of the now evolving and reviving China, in a memorial to the Throne, gave utterance to words, a free translation of which is as follows:—Whether it be finance, education, industry, communication, military defence, the frontiers and dependencies, foreign affairs or other urgent matters which cannot be fully stated, not one is unimportant or should be neglected. Times of general intercourse differ from times of isolation, and the period of constitutional government differs from that of absolute monarchy. Of old the idea was to be conservative, now the aim is to be progressive. In former days the aim was to secure peace through isolation, now it is through interdependence that we can succeed. Circumstances have wrought these changes, and we must adapt the policy of government to meet these changed conditions." These words, from a man who has been known as a conservative of the conservatives, are pregnant with significance.

In no branch of government activity is its “aim to be progressive,” and its desire to “adapt the policy of government to meet the changed conditions” more strikingly shown than in its effort to stamp out disease within its jurisdiction, as was manifested during the late epidemic of plague in Manchuria. And, to my mind, this is just as strikingly shown (although in a less showy and more tedious undertaking) in the government’s efforts to put modern medical and surgical methods of treatment within the reach of the most poverty-stricken Chinese in Peking. I refer to the system of hospitals or dispensaries established and managed by the Board of the Interior or Min Cheng Bu. Of the Government’s success in the former undertaking, culminating as it did in checking, in a comparatively short period of time, one of the most virulent epidemics of plague known in history, and finally in that epoch-making and International Conference of Mukden, I need not make mention. But I want to give a brief description of, and a few interesting facts about, this less known benevolent government enterprise, which I trust the accompanying photographs will make more vivid.

I had been in Peking over a year and a half when, going along one of the great streets of the city, I saw this sign, neatly painted in Chinese characters: “Min Cheng Bu Kwan Yi Yuan,” and also in
English this sign: "The Chinese General Hospital." I was dumb-founded. I could not believe my own eyes, for this was so unexpected. I had never heard or read that the Chinese were doing anything like organized charity work, or medical work for their own people. I had read the usual worn-out phrases in papers and pamphlets that so many millions of Chinese were dying yearly, monthly, and daily, all because everything, it would seem, depended on our superior civilization, and nothing was being done except by the few hospitals that philanthropic America so generously gave to China. (No mention is made in these misery-laden reports, of the work of benevolent England, though sometimes her hospitals are within two or three city blocks' distance of Dame Columbia's handiwork, and in most of English reports there is haughty silence about the work of Americans). That the Chinese Government was doing anything for the sick and the dying within its domain I had never heard. But here was a real Chinese hospital, at least a real sign, a real expression of an effort. I was delightfully surprised. Not having sufficient of the language, at that time, to decipher the Chinese characters on the sign board, I asked a man who has spent almost as many years in China as I am old, whether he knew anything about "The Chinese General Hospital." He replied that he knew nothing about it, but he suggested that it might be one of those money-making schemes with which the Japanese doctors were "fleecing" the simple Chinese. I asked two or three other foreigners, most of whom did not live more than two or three miles distant from the location of the sign, if they had been to see what the hospital was like or if they knew anything about it from personal observation. Not one of them could tell me a single definite thing about it, nothing but a lot of rumors. One wise man offered the illuminating suggestion that he supposed that it was one of those things out of which the Board of Interior was making some "squeeze," that he had had a patient who had previously been to one of the hospitals for treatment, which had not been successful, but that he had never been to the hospital to see for himself what was being done.

I told myself that I would know whether there was something real behind that notice of a hospital. I told myself that I owed it to my work and to the Chinese people to know something about that sign besides mere rumors and the story of a dissatisfied patient. Of course in America and in Europe there are no "Old Chronics," no "Old Rounders," no dissatisfied patients, going in turn to the one hundred and one hospitals and ending up with the "Mental Healers," and later in the morgue!
Well, I went and saw, and like St. Thomas, I believed. Believed what? Believed that the Board of the Interior has a model modern hospital in Peking? No. That they are curing every case that comes to the hospital? No. That the Min Cheng Bu is doing nothing but getting a "squeeze" out of the undertaking? No. That there was nothing but "a high-sounding name"? No. But that there is a real sincere, earnest effort to put within the reach of all needy Chinese the best that the medical men, both of the East and of the West have to offer? Yes.

Now, does some Westerner ask: "What, pray, has the East—meaning the old type Chinese medical man—to offer to the afflicted?"
I will say perfectly frankly that I do not know. But I will say that I think it rational to believe that a class of men who have been trying to cure disease through successive generations for centuries, must have produced some men, who discovered some drugs, and who have left records of observations and methods of treatment, some of which are of value. I believe that it would not hurt us to know a little more about them. At any rate there are not a few Chinese patients who still prefer to go for treatment, at least for certain types of disease, to the Chinese trained doctors—that is, the old-school Chinese doctors, as contrasted with the new-school Chinese doctors, who have had their training based on the medical sciences as taught in Western lands. In these hospitals established by the Board of the Interior, the patient is perfectly free to choose whether he will be treated by the Chinese or Western method.

TACT OF CHINESE IN RECONCILING OLD WITH NEW.

To my mind, one of the most interesting features about these hospitals is the manner in which the Chinese have gone about educating the masses in this matter, and the way they have conserved what is good in the old Chinese School of Medicine and taken in what is useful and practical to them in the New School of Foreign Medicine. Thus, instead of antagonizing and embittering the old by the new, they have given each a chance to work out its own salvation. And the natural law will work out here as elsewhere, it will be "the survival of the fittest." These hospitals of Min Cheng Bu are housed in buildings of Chinese architecture, and enclosed according to Chinese fashion within high walls. The enclosure forms a rectangle; the entrance divides this into two parts, one of which is given over to the adherents of the Old School, and one to the disciples of the Western Sciences. As one enters the great door or gate of the
Entrance to one of the Min Cheng Pu Hospitals.

Some of the Min Cheng Pu Hospital Staff.
"Compound" or Enclosure, in which the hospital is situated, a long one-story building is seen stretching to the right and one to the left. In the building on the left side is the little office, where the patients must tell whether they wish to see the Chung Yi, the Chinese-trained doctor, or the Hsi Yi, the Western-trained doctor. They receive tickets accordingly, and tab is kept on whether they are "new-comers" or "returns." A little further to the left is a finely-equipped modern drug-store, where all the important Western remedies are found, and two or three young Chinese men are in attendance. The rest of the building on the left is made up of neatly-labelled and clean-looking little rooms for the nurses and assistants. On the right side of the gate one sees first a fine large room containing, not the bottles, beakers, mortars and paraphernalia of a Western drug-store, but all sorts of herbs, leaves, barks, and other substances in the neatly-labelled drawers and jars, large and small, of the old-type Chinese medicine shop. The rest of the long building on the right of the gate is given over, as on the left, to rooms for nurses and "dressers." Going through a little court to the left, one comes to a small building over the door of which is the sign: "Guest Hall." Into this hall the visitor is invited after passing in his card and going through the usual formalities and courtesies of which the Chinese are masters. This little waiting-room is supplied, not with the old straight-back, hard-seated Chinese chairs, but with the fine upholstered European kind, and in it is a large table covered with a spotless white table-cloth, a fine side-board, a coat and hat rack and a wash-stand with towels. The walls are made cheery by a few artistic pictures and an enlarged photograph of Prince Su, who, as the head of the Board of Interior, is the titular chief of this system of Min Cheng Bu Hospitals.

This reception room opens out into a large, clean, well-kept court in which are planted several rows of well-trimmed locust trees. This court makes a splendid waiting-room for the patients in hot weather, benches being provided for that purpose. On the south of this court is a long building in which are two large waiting-rooms, with clearly-written notices on the doors, showing that one is for male patients, the other for female. These hospitals are proof of the old adage: "In medicine there is no sex," and they are an effective force in breaking down the artificial barriers that have been built up between the sexes in this land, both men and women being treated at these great public hospitals. To the north of the court is another long building in which is a rather poorly-equipped operating-room. This is only a temporary arrangement and a well-planned room for this work has already
been begun. There are also an anaesthetic room, and two or three smaller rooms used as dressing rooms for minor surgery. East of the court is a long building which the three or four old-school doctors use as offices and examination rooms, for the service of those patients who desire to be treated "in the good old-fashioned Chinese way." On the west of the court is the same kind of building for the use of the adherents of the modern school of medicine. This building, besides having the physicians' desks, private examination rooms, etc., has three small, well-equipped dressing-rooms supplied with all the modern antiseptics.

Passing to the north from this court we come into a smaller well-kept court. Indeed, the most striking thing to one's eye, as one passes from place to place in this half-Eastern, half-Western temple of healing, is the refreshing cleanliness and orderliness of the whole establishment. I have seen very few foreign-managed hospitals in China that are any cleaner, if as clean and hygienically in order, than these hospitals of the Min Cheng Bu. The buildings surrounding this smaller court are used for in-patients of the third and second classes who pay fifteen and fifty cents a day respectively.

Returning now to the reception room and passing to the west one comes to another small court. On one side is a very attractive little room fitted up as a rest room and a library for the physicians. The superintendent also has his room here. The other rooms surrounding this same small enclosure are nicely and comfortably fitted up for first-class patients who pay a dollar a day.

Passing still further to the west from this court one comes to a series of small, newly-built, well-lighted, fire-proof buildings, about twenty by twenty-five feet, each with cement floor. These are the sterilizing room, and the microscopical, and pathological laboratories. Back of these is the isolation ward for infectious and contagious diseases.

SOME INTERESTING FACTS ABOUT THE HOSPITALS.

I have now briefly and very inadequately given you a description of one of these Min Cheng Bu hospitals, the one I first visited, which is situated on Hata Men street. It was on my visit to this hospital that I learned that the Board of the Interior also had two other hospitals in Peking. Although the other hospitals may differ a little, in a general way they are practically laid out on the same plan as the one I have described. There are also similar hospitals under the same management in several of China's largest cities.
I discovered some very interesting facts about these hospitals. They were started about six years ago. The average daily attendance of out-patients when the hospitals were first opened was about three hundred, and there were then four old-school doctors and three new-school doctors in attendance. Then over two hundred patients would ask for the treatment of the former physicians and not quite a hundred would ask for that of the latter. Now, the tables have been completely turned. There are at one hospital seven doctors of the new school, and four of the old school, while at another there are six doctors of the new school and four of the old school. There is a daily attendance of more than five hundred patients; to-day about four-fifths of the patients ask for the Western-trained physicians, and only about one-fifth for the Chinese-trained doctors. The following is interesting as showing the attitude of mind of the fairly intelligent Chinese men toward the two schools of medicine to-day. I asked one of the superintendents, a man who has been in the hospital for three years and has had an opportunity of watching the practical results of the two methods of treatment, what kind of a doctor he would call to see him if he were sick. After some hesitation, he replied that it would depend or what sort of illness he had, if it were an "internal disease" he would call an old-school doctor, while if it were an "external disease" he would surely call a new-school physician.

It was most interesting to me to ascertain where the doctors of the new school received their training. Let us take, for instance, the seven Western-trained physicians that attend the hospital on the Hata Men Street: Dr. L. T. Liu received his medical education in France, Dr. Chiang in Japan, Dr. Liu, after getting some preliminary training at Peking University, studied medicine in Japan, Doctors Wu, Wang, and Na received their training in the Government medical school in Tientsin, where the teachers are Frenchmen, and Dr. Kung received his instruction at the St. John's Medical School in Shanghai.

The three doctors of the old school had their training at the old-fashioned medical school, outside the Ho Men in Peking.

Above these seven doctors is the Chief of the Sanitary Department of the Board of the Interior, Dr. L. C. Fu, who has studied both in England and in Germany.

The greatest part of the work of these hospitals is confined to the treatment of out-patients. There are two causes for this, first, the Chinese people much prefer to be treated in their own homes rather than to confine themselves to the rules and regulations of a hospital, where they cannot do quite as they like. And secondly, the hospitals
are rather cramped for space and until they can be enlarged, for which purpose land has already been bought, there is not sufficient room for in-patients. However, I think that they deserve to go by a more dignified name than that of Dispensary, for in the course of a year considerable numbers of patients are accommodated in the three classes of rooms. The rates for these, enumerated above, include meals, medicines, operations, and all medical and surgical attention while in the hospital.

**ALMSHOUSE AND REFUGE FOR THE INSANE.**

If a patient be so poverty-stricken that he cannot pay fifteen cents a day, and is in need of medical attention, he is given a certificate and sent to Min Cheng Bu's Almshouse and Orphanage in the "west city" of Peking. This, too, is an exceedingly interesting establishment, under the management of the same government board, and is doing fine work. The last time I visited this institution the inmates were as follows: Old men 30, old women 25, boys 120, girls 25, blind 12, dumb 8, deaf 18, and crippled 18. The almshouse has both a foreign-trained and a Chinese-trained doctor in attendance. There is also in connection with this almshouse, though not in the same enclosure, a very fair beginning of a refuge for the insane. Both male and female patients are taken in. There are now seventy-five inmates in this department. I wish I had time to give a fuller description of these institutions; but I can only say, in passing, that the boys look as well nourished and as neatly clothed and are cleaner than the average Chinese boy. Furthermore I found no evidence of abuse among the patients in the insane hospital, although I have been there at three different times, each time without those in charge knowing previously of my coming. I have come to the conclusion that much of the talk about the Chinese cruelly treating their insane patients is ill-founded, and I have been persuaded that we can very safely leave this class of patients to the care of their own hospitals. The Min Cheng Bu has already obtained the site for and is about to begin building a large hospital for the mentally diseased in the South City of Peking.

**PREVENTIVE MEDICINE.**

A very interesting phase of this work is the effort being made by the hospitals to educate the people in preventive medicine by giving free vaccination against small-pox, and antitoxin for diphtheria. About 5,000 availed themselves of this opportunity to be vaccinated last year and about 3,000 applied for diphtheria antitoxin. After next year they hope to be manufacturing their own vaccines.
Most of the drugs used in these hospitals are bought in England and America. Instruments are mostly bought in Germany. While most of the cotton, bottles and glassware come from Japan.

CHARGES TO OUT-PATIENTS, A CHANGE CONTEMPLATED.

Out-patients, up to the present time, have received all treatment and medicines free of charge, but the authorities are very seriously contemplating a change. They have found, as we have in Western lands, that a great many people abuse the privilege and that a great many come for treatment who could easily pay a physician. These great government charitable hospitals or dispensaries are open daily, except Sundays, from seven to eleven o'clock, and if one wants to see for himself whether the people are appreciating these institutions he has only to attend one of them, almost any day about eight o'clock. He will see an interesting and motley crowd of Peking's best and worst, and will be convinced that here is something real for the Chinese by the Chinese.

LESSONS TO US OF THE WEST.

Now what lessons have these hospitals to teach us of the West? In methods of technique and equipment, perhaps, they can teach us nothing, and no one knows better than the physicians, who are trying to bring the best that they have to their own people, how far from perfect are their apparatus and equipment. When I spoke of their "hospital" they modestly replied: "This is just a dispensary." To those who are sceptical about the attendance of out-patients I would like to say that on a visit to one of the hospitals lasting from eight to a little after ten o'clock, I counted over four hundred out-patients. The same day, which happened to be rainy (a Chinaman detests a rainy day, for his shoes soon perish if worn in wet weather), the largest and best hospital under missionary control in Peking had about forty out-patients. Now, I do not say that the missionary hospital has not a place, a duty to perform, in China. No one, in fact, can estimate just how much this benevolent medical enterprise of the Chinese government owes to the spirit of the Christ-kind Christianity of which the missionary hospital is a manifestation. Who can say that these very institutions, though erected by Chinese money, are not largely the product of medical missionary effort? May it not further be an illustration of the fact that the foreign enterprise is here merely to do the sowing of the seed which can come to its largest development only through native forces. I believe that we may learn a helpful lesson of patience and tactfulness from the manner in which the
Chinese have gone about gradually winning over their people to what is considered the best and most helpful in modern medicine. May we not learn too, even though it is rather late, that the old Chinese architecture can be used and can be made hygienically clean, and that therefore, it is not perhaps as necessary as some people think, to spend large sums of money in foreign architecture. Let us be as ready to rejoice and to tell what the Chinese are doing for their own people as we are quick to proclaim what terrible catastrophes would occur if we were not here. Shall we not take deep satisfaction in the fact that the handful of missionaries are not alone in this great work for the afflicted and the needy? Let us be less self-centered and more conscious of what is going on before us. And finally, we ought to learn, and that right quickly, that if we are going to give anything like an adequate impression to this people of what a really well-equipped Western hospital is like, we must sink all our small petty sectarian pride, and ambitions, and get together in a union for hospital work, as well as for medical education. And it must be a union that is real, vital, cooperative, and of the heart. If our Christianity be such that it does not enable us to dwell and work together "in the unity of the spirit and in the bond of peace"—well, then, we have not the right kind, and we had better be frank enough to acknowledge it.
In Consultation.

TREATMENT OF A CASE OF SKIN DISEASE OF SCALP.

Dr. May Austen, Chengtu, W. M. S. Hospital.

Perhaps an account of the treatment of a case of skin disease of the scalp may not be uninteresting to some of your readers. In our Chengtu school we have had a young girl with an exceedingly difficult case of parasitic (mould) disease of the scalp. Three years ago, when I arrived at Chengtu, the child's head was completely shaved and each morning she was going to the hospital for treatment. The disease covered all the top of the head and extended behind to below the level of the ears. When the school girls were handed over to me a year and a half ago the case was no better, although very many remedies had been tried. When I took over the case they were trying mercuric nitrate ointment one week, and the following week a combination of salicylic acid, chalk and carbolic acid which I believe was recommended in the pages of this Journal for parasitic diseases of the scalp difficult to cure. One woman in the hospital told me this latter prescription was only making things worse. In despair I gave up all former treatment and decided to try chrysarobin although I had very little faith in anything at the time. I used at first 5i to vaseline 5i. After two or three applications there was no decided improvement. At that time my attention was called to a purplish red flush of both cheeks. I was afraid the remedy might be a little strong so I applied on alternate days tincture of iodine instead of the chrysarobin. After a month or so the disease had disappeared and the hair was growing all over her head. The sudden change was particularly noticeable when she took her place in church. I warned her to go every morning to the hospital to have her hair washed and scalp inspected. Once or twice it started up again but the part was quickly shaved and a few applications of the chrysarobin cured it at once. I gave some medicine to her father when the child went home for her holidays, and sincerely hope he is watching her scalp these revolutionary times.

This is a case of very long standing and where numerous remedies regularly applied failed to cure. Chrysarobin ointment was the only remedy we could find, and it did its work immediately. In a case of this kind it is imperative to continue treatment and watch the case long after all visible signs of the disease have disappeared.
REPORT ON THE HEALTH OF SWATOW FOR THE YEAR ENDED 31ST MARCH, 1911.

Dr. C. H. D. Morland's.

During the above period Swatow has been suffering from lack of water, as will be seen from the accompanying tables of rainfall, for which I am indebted to the tide-surveyor, Mr. J. C. A. Holz.

As previous experience had led one to expect, cholera occurred in Swatow in the early summer. This is commonly the case here at that time of year, if the rainfall has been deficient in winter and spring, but cholera is not a regular summer visitor. For about one week in May, cases were fairly numerous and of a somewhat severe type. In some of the villages in the vicinity the disease was more prevalent than in Swatow.

In the spring and early summer plague was present in several places in the district. In Swatow and its immediate neighbourhood plague was somewhat less evident and less fatal than in previous years. The natives say that natural recovery was more frequent.

Early in 1911 information was obtained that plague was present in Hweilai, about thirty-five miles in a direct line from Swatow. This is of importance to Swatow, because a certain number of coolies are regularly coming to the port for emigration. It has been reported that some small villages have been deserted, the people having moved to mat-sheds on a clean site, to avoid infection.

Since January, plague has come nearer to Swatow; but at the end of March, Chaoyang is still free: this town is usually the chief sufferer from all sorts of epidemic diseases.

At Mioü, about thirty to thirty-five miles in a direct line from Swatow, but forty-five to fifty miles as travellers go, there was a sharp epidemic of plague early in February; but at the present date (March 31st) cases have become comparatively few. Some plague has occurred also in Chaochowfu, and in the town of Tatthoupou occasional cases have occurred since January. This town is in regular communication with Swatow by steam-launch and by road; but up to the present there has been no introduction of the disease. In the latter half of March, however, natives report that there is greater mortality than usual among rats in one part of Swatow. Haffkine's prophylactic
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<tr>
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<td>8.79</td>
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<td>6.51</td>
<td>9.66</td>
<td>14.22</td>
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<td>1.77</td>
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<td>3.05</td>
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<td>15.98</td>
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<td>0.69</td>
<td>0.63</td>
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<td>1.03</td>
</tr>
<tr>
<td>1901</td>
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<td>0.79</td>
<td>0.36</td>
<td>1.34</td>
<td>2.81</td>
<td>2.05</td>
<td>4.64</td>
<td>4.96</td>
<td>0.80</td>
<td>1.04</td>
<td>0.96</td>
<td>0.05</td>
<td>0.21</td>
</tr>
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<td>0.21</td>
<td>1.15</td>
<td>0.75</td>
<td>0.51</td>
<td>0.39</td>
<td>0.10</td>
<td>1.63</td>
<td>0.21</td>
<td>5.15</td>
<td>0.24</td>
<td>0.11</td>
</tr>
<tr>
<td>1903</td>
<td>2.59</td>
<td>1.43</td>
<td>0.85</td>
<td>0.21</td>
<td>1.15</td>
<td>0.75</td>
<td>0.51</td>
<td>0.39</td>
<td>0.10</td>
<td>1.63</td>
<td>0.21</td>
<td>5.15</td>
<td>0.24</td>
</tr>
</tbody>
</table>

The China Medical Journal.
has been brought to the notice of the people, and a few thousands of inoculations have been carried out, mostly by Drs. Whyte and Beath, of the English Presbyterian Mission.

We may expect to have plague present to some extent in Swatow next month (April); but, as in the past two years, it appeared to be getting less severe, and this spring it has not yet shown itself, there is some hope of a comparatively mild outbreak.

Small-pox, which is probably always present and which usually becomes epidemic each winter, has been more than usually prevalent and severe from December 1910, to the present time. A large proportion of severe hæmorrhagic cases has been noted and the mortality has been high.

It is said that there has been much sickness and mortality among cattle in the neighbourhood; but I have not been able to examine any of the animals, either alive or dead.

During the period covered by this report there were six deaths among foreigners, of which one was accidental and two due to infection. One of the latter was due to hydrophobia, and one to typhoid fever, with repeated hæmorrhages. In addition, one death in the Summer was ascribed to shell-fish poisoning; but as cholera was prevalent at the time, and the symptoms were not distinctive, cholera may have been the true cause.

REPORT ON THE HEALTH OF TENGYUEH FOR THE HALF-YEAR ENDED 31ST MARCH, 1911.

Dr. R. L. Sircar's.

General Health.—The general health of this port was good during the period under report. There was one death in the hospital, due to malarial fever. The patient was brought to the hospital in a moribund condition, and died on the day following his admission.

The death-rate could not be ascertained, as there is no system of registration of births and deaths in this district. The principal causes of death seem to be typhoid fever, dysentery, diseases of the lungs, and malarial fever.

Prevailing Diseases.—The most prevalent diseases were those of the eye and of the skin, ulcers, diseases of the digestive system, and malarial fever.

General Type of Diseases.—(a) Among the diseases of the eye, trachoma and ulcer of cornea are very common here. Trachoma seems
to be in epidemic form among certain families of the lower classes, all of whom are more or less affected by this disease. There is no system of special treatment of these diseases, and personal cleanliness and knowledge of its infectious character are badly needed.

(6.) During the rainy season certain areas of this district, where stagnant water breeds mosquitoes, are affected with malarial fever; the fever is not, however, of a very serious nature. I have not seen many cases of enlarged spleen or liver due to malaria, except in persons who have returned from the malarial districts of Burma. There exists a disease locally known as *Yachang* (雅帳). The principal symptoms are hyper-pyrexia and delirium, followed by unconsciousness and lock-jaw, which generally end fatally. The victims of the disease are mostly travellers from Burma. I have seen many cases, and am of opinion that the cause of this disease is malaria. Of course, without microscopical examination, one cannot be positive as to the cause.

*Relation of Diseases to Local Conditions.*—The free use of night-soil in vegetable gardens during the rainy season is greatly responsible for spreading dysentery and typhoid fever among the inhabitants; and often well-water, which is polluted during this season by the accumulation of dirty surface water around the wells, is also an important factor in causing the diseases. The last, and not least, important factor in disseminating malarial fever and other diseases is the inefficiency of artificial drains in certain parts of the town where stagnant water accumulates. But the natural drains serve a good purpose.

*Peculiar Diseases.*—No cases of leprosy came under our treatment during the period, and I also find no record that any case of anthrax has been treated in this dispensary during last six months. It is, however, noted that care should be taken to furnish information about this disease in my future reports.

*Epidemics.*—There was an outbreak of small-pox during February and March, in an endemic form in certain villages; but I am told that the attacks were not of serious nature. No case came under our treatment, and I am unable to furnish any details about its course or fatality. Vaccination has been gaining in popularity in this district, owing to our strenuous efforts; but the majority of the people are still in favour of inoculation by the "blowing-up" system, or *ch’uihwa*, (吹花). The scabs from small-pox cases are collected and stored in the form of powder for the season. This powder is blown up the nostrils of children, and causes an attack of artificial small-pox in the subject, the virulence or mildness of the attack depending upon the doses used and the type of the small-pox from which the scabs were taken.
When the attack is severe, the result is pitiable; the unfortunate victims of this objectionable practice sometimes lose one or both eyes, some become permanently deaf, and some die of blood-poisoning. Two such cases came under my treatment lately; one of them had necrosis of the bones, due to multiple septic abscesses, and the other had lost one eye and had a big gangrenous ulcer on the right cheek. As they did not present themselves a second time, I presume that they died.

Miscellaneous.—The Medical Officer of this district has a good reputation among the people in midwifery practice, as the lives of many persons are saved from the unskilled hands of the local women who act as midwives. The majority of the cases are delivered by forceps. There is here no trained or half-trained midwife.

There has been a great improvement in the dispensary and hospital. Some additions and alterations have been effected to the permanent buildings, which were ill-ventilated and badly lighted. Charitable contributions have made it possible to provide beds, mattresses, jackets, trousers, bed sheets and mosquito curtains for three in-door patients, for which I am greatly indebted.

There was a change of Medical Officers during the period, and I took over charge from Dr. N. Chand on the 17th March, 1911.

**Table Showing the Number of In-door and Out-door Patients Treated During the Half-Year Ended, 31st March, 1911.**

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>In.</td>
<td>Out.</td>
</tr>
<tr>
<td>1. Dysentery</td>
<td>1</td>
</tr>
<tr>
<td>2. Malarial fevers</td>
<td>5</td>
</tr>
<tr>
<td>3. Syphilis</td>
<td>1</td>
</tr>
<tr>
<td>4. Gonorrhea</td>
<td>1</td>
</tr>
<tr>
<td>5. Tubercular diseases, including tuberculosis of the lungs</td>
<td>4</td>
</tr>
<tr>
<td>6. Diseases of the nervous system</td>
<td>1</td>
</tr>
<tr>
<td>7. Diseases of the eye</td>
<td>1</td>
</tr>
<tr>
<td>8. Diseases of the ear</td>
<td>1</td>
</tr>
<tr>
<td>9. Respiratory system</td>
<td>1</td>
</tr>
<tr>
<td>10. Worms</td>
<td>25</td>
</tr>
<tr>
<td>11. Diseases of the digestive system</td>
<td>133</td>
</tr>
<tr>
<td>12. Diseases of the lymphatic system</td>
<td>17</td>
</tr>
<tr>
<td>13. Gout</td>
<td>17</td>
</tr>
<tr>
<td>14. Ulcers</td>
<td>138</td>
</tr>
<tr>
<td>15. Local injuries</td>
<td>60</td>
</tr>
<tr>
<td>16. Diseases of the skin</td>
<td>203</td>
</tr>
<tr>
<td>17. Poisons</td>
<td>1</td>
</tr>
<tr>
<td>18. All other diseases</td>
<td>41</td>
</tr>
<tr>
<td>19. Midwifery cases</td>
<td>3</td>
</tr>
<tr>
<td>20. Connective tissues</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>
IN MEMORIAM.—DR. J. G. MEADOWS.

Whereas, It is with a deep sense of our loss that we record the death of our esteemed friend and brother the late Dr. J. G. Meadows. He was a very efficient worker of splendid capabilities, and during the few years he lived in China, he did faithful service in the field to which he was called. Always cheerful, he was ever ready to lend a willing hand when help was needed.

His professional work was of the highest order, and it was his peculiar delight to tell the Good News. He was a man of broad vision, keen observation, and of whom it could truly be said, "With malice toward none and with charity for all." He was not only a friend, but also an inspiration to those who knew him and worked with him. Of a progressive spirit, he had the faculty of stimulating others to do their best, and rejoiced with them when he felt that they excelled him. He never tried to reap the benefit of any scheme promoted by himself, but delighted to see others carry such forward and enjoy its results.

Not only shall we, as a Society, miss his enthusiasm, ability and friendship, but also all others who knew him and came in contact with him. Many hold him in grateful memory for promoting Ch'eung Chan as a place of rest for tired mothers and sick children. He had a leading part in the promoting of the present Union Medical College in Canton, having labored earnestly on behalf of the same.

It would seem to us that such a valuable worker "could ill be spared," but we bow in humble submission to the will of Him who makes no mistakes and "doeth all things well."

Resolved, That we extend our heartfelt sympathy to his wife, who is one of our members, and assure her of a constant interest in her welfare and that of the fatherless children.

Resolved, That we also express our deep sympathy with the South China Mission of the Southern Baptist Convention in their loss of such a valued worker.

Resolved, That one copy of these resolutions be sent to the family, one to the South China Mission of the Southern Baptist Convention, and one to the CHINA MEDICAL MISSIONARY JOURNAL for publication, and that one copy be spread upon the minutes of the Branch.

Signed: Dr. J. M. WRIGHT.
       Dr. C. A. HAYES,
       Com.
The China Medical Journal.


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

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

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

Editorial.

THE REVOLUTION.

Until the vexed question of monarchy under the Manchus, or some other government under Chinese rule has been settled, we in China can think and talk of little else because it is so vitally essential to our work that some form of stable government be established and that quickly.

At present there seems to be slight hope of a compromise, and a meeting is now being held in Shanghai between delegates appointed by the Premier Yuan Hsih-kai, and representatives of the Revolutionary Party to discuss terms of peace, and a temporary armistice has been declared. The outcome is impossible to predict.

The ravages of war and the overthrow of existing order in many parts of the country have induced a condition of want and anarchy that is fearful to contemplate. In the meantime practically all mission work in the interior is at a standstill, and from the more remote and inaccessible places all foreigners have been ordered to the coast or into the treaty-ports by their respective consuls.

Medical missionaries in the districts actually engaged in fighting have taken up Red Cross work and are doing yeoman service in Wuchang, Hankow, Nanking, Chinkiang and many other points, and turning their hospitals over to the use of both sides; and in one case at least, seem to have acted as arbitrator between contending factions and saved a city from pillage.

The success of the Imperial Government at Hanyang and in the north is off-set by the fall of Nanking and the loss of Yunnan.
and Szechwan in the west. Any reconciliation between the Man-
chus and the Chinese, while not beyond the range of possibility,
seems extremely improbable.

In the meantime the lawless element in the community, which
in this country is never sufficiently suppressed, will continue to
play havoc with life, property, commerce, and industry in general.
At present there is nothing tangible in the situation except talk
and lawlessness.

THE HARVARD MEDICAL SCHOOL.

The establishment of a medical school in Shanghai under the
auspices of the Harvard University Medical School and by its own
graduates marks a distinct advance in the facilities for obtaining a
sound medical education offered to Chinese, but has, however,
been foreshadowed by the Union Medical Schools in Peking and
Shantung in the north, and by the University of Pennsylvania
School in Canton and the new Hongkong University. The
teaching in the new Harvard School and also that in Hongkong
University will be conducted in English.

Already three of the faculty Dr. Martin R. Edwards, the
Dean, and Drs. Hiltner and Dunlap have arrived, and they hope
to have two more here by China New Year.

They will begin teaching at that time with the present upper
class of the St. John's Medical School, but no new students will
be received until the new college year opens in September next.

The prospectus of the school and the requirement for admis-
sion will be issued shortly but it is obvious that only young men
with a thorough knowledge of English and an elementary
scientific training will be eligible.

It is hoped that with increased equipment and advantages
more and more young men of good education may be influenced
to take up the medical profession as a life-work.

In addition to the regular teaching staff a research laboratory
will be established with a staff of five trained investigators in
charge who will devote practically their whole time to the study
of the diseases peculiar to this part of the world.

It is expected that the laboratories will also offer facilities for
research to men coming for independent study from other countries
and will aim in every way possible to assist in the development and advance of medical science throughout China.

To all who have the cause of the medical education of China at heart this step will be hailed with joy and we wish our newly-arrived colleagues of the Harvard Medical School the full measure of prosperity and success that such a work deserves. We feel sure that they will have the cordial coöperation of those who have preceded them in the field and who have tried with curtailed resources and staff to lay strong foundations that others might build thereon.

THE TRIENNIAL MEETING.

The next regular meeting of the Medical Missionary Association of China has been arranged to be held in Peking in the early part of next year probably in the China New Year holidays, if such a feast be then in the calendar.

In order that the meeting should be the success and help that it ought, every man and woman, who expects to go or hopes to be there, ought to begin now to plan to do something or say something to help those who will be there.

A letter on the subject from Dr. F. J. Hall, Secretary of the Peking Medical Society is published under 'Correspondence.'

THE RETIREMENT OF DR. JEFFERYS.

The members of the Medical Missionary Association of China will regret to learn that Dr. W. H. Jefferys of St. Luke's Hospital, Shanghai, formerly Editor of the Journal, and joint author with Dr. J. L. Maxwell of "Diseases of China," has been obliged to retire from his work on account of ill health.

That a man of Dr. Jefferys' ability, temperament and devotion to his profession should thus be called upon to give it up in the full tide of his usefulness is nothing less than a calamity, and a very real loss to the medical work in this country.

It is the earnest hope and prayer of his colleagues that with the return of health and strength he may find other fields in the homeland that will give ample scope for those professional talents with which he is so richly endowed.
RESOLUTIONS PASSED BY THE CHINA MEDICAL MISSIONARY ASSOCIATION.

That there should be at least two medical missionaries attached to every large hospital.

That as it is of the highest importance that medical missionaries should have a good knowledge of the Chinese language, spoken and written, and should early gain some experience of existing mission methods, the Association urges the importance of relieving them of all responsible work during their first two years in the country, of requiring them to pass examinations not less searching, if on different lines, than those of their clerical colleagues, and of locating them for a time in established medical centres.

(These two resolutions have been repeatedly passed by the C. M. M. A. with all possible emphasis).

That union in hospital work, as well as in medical education, is very desirable, and that the C. M. M. A. recommend to the societies which it represents, that wherever practicable missions occupying the same or adjacent territory carefully consider the advisability of such unification of their medical work.

That with respect to medical education in Chinese, the Association urges the Missionary Societies to unite in establishing a few thoroughly equipped union medical schools in several of the large mission centres.

That furloughs for missionaries should be at more frequent intervals and for shorter periods. A term of five or six years with a furlough of six to twelve months would greatly conduce to the efficiency of the work and obviate many breakdowns in health.

That medical mission candidates be required to show evidence that they have made a special study of tropical diseases. Preferably that they have taken a practical course in tropical medicine or at the very least have attended a course of lectures on the subject and have been thoroughly trained in practical bacteriology and microscopic methods.

That the Foreign Mission Societies make provision for the thorough screening of mission homes and hospitals, especially in malarial districts, so as to make them mosquito and fly proof.

That the Foreign Mission Societies allow their medical missionaries while on furlough ample time for postgraduate studies and, if necessary, pay the requisite fees.
Book Reviews.


This book contains a great deal of information in a small compass. Owing to its size there is, of course, no attempt to go into every detail of the various operations described. Enough on general lines is given to enable anyone but a novice, to perform an operation by a method which may differ from the one he has been accustomed to using. In this some of the illustrations would be of valuable assistance. They show the up-to-date ideas of such men as Mayo, Halstead and others, while the diagrams are very clear. Stewart seems to have the happy faculty of giving you just the thing you want to know, which is very often left out of much larger volumes. Probably the most valuable feature of the book is that no space is lost, but the author presents the salient points in each case, whether in description of condition, causation, symptoms, special methods of diagnosis, treatment or operative procedure. Possibly it could not be recommended as a complete reference library on surgery, but it is entirely up-to-date and is a very valuable little manual.

H. H. M.

Book Note.

Dr. Fulton's translation of Dr. W. H. Hopkins' book, The Roller Bandage, published by the China Baptist Publication Society of Canton, is on sale at the Presbyterian Mission Press, Shanghai: price, 50 cents. This note should have been in the November issue of the Journal but was accidentally mislaid.

Notes on Books.

The April and July issues of the journal edited by Dr. G. E. Brooke, of Singapore, on behalf of the Malaya Branch of the British Medical Association, thoroughly justify the existence of this Far East quarterly publication. Among other interesting items are a review by Dr. R. D. Keith of the system of medical education pursued in Singapore; a history by Dr. W. R. C. Middleton of the working of birth and death registration which was introduced in the Straits Settlements as far back as 1868; and an account by Dr. K. C. Sinha of a case in which sudden inflammation of the knee-joint, occurring some two years after an accident, was found to be due to the lodgement of some pieces of granite in the head of the femur. The author
observes that the Chinese, unlike the Malays and Tamils, exhibit great
tolerance of pain and marked fortitude in suffering. In one of the
briefer articles, Dr. E. D. Whittle draws attention to the fact that as
far back as 1721, or some seventy years before the publication of
Winterbottom’s *Account of the Native Africans*, a surgeon in the
Royal Navy named John Atkins, described sleeping sickness under
the title of the “sleepy distemper.”

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**Notes from Dr. Cousland.**

Dr. Niles of Canton, who has charge of a number of blind girls, is
teaching them massage. This promises to be a good method of
solving the problem of a suitable occupation for some of the blind.
There should be many openings for competent masseurs and masseuses
in connection with our medical work.

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From our Book Depot in Peking we heard last summer good
accounts of the sales of our books. Heath’s *Anatomy* was bought by
the officials of all the different Boards, and the Imperial Army Medical
College at Tientsin ordered 400 copies. Several of the Princes also
had sent for copies.

Medical education in China is no doubt now entering upon a new
era and it is fortunate that we are so far prepared to meet the demand
for text-books. But as our books will now probably go much faster,
much work will be necessary not only in preparing those still lacking,
but in revising the new editions required. The number of translators
is deplorably small and their time far too limited, but all interested in
教学 can help if only by sending criticisms and corrections to the
editor. In connection with subjects in which there is yet no book in
Chinese it may be hinted that all these subjects have been taught at
the Union Medical College, Peking, and that *duplicated copies of the
lectures are kept in stock.* 

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The following letter from a medical friend in Japan should be of
interest.

“In Japan no diploma or certificate from any medical school entitles
a man, whether Japanese or foreigner, to practise. He must pass a
Government examination. There are three standards of qualification:

1. Those from the higher middle school (college) can enter the
Imperial University Medical department.
2. Those who pass through the middle school can enter the Tokyo Charity Hospital, the China Medical College (where the Chinese Medical students go) or other school.

3. By far the largest number of men now practising, especially in the interior, are men with a fair education who study for two or three years with a good physician, acting as his dispenser during the time. He gets a certificate or letter from this doctor and is allowed to go up for the Government license-to-practise examination. In four years from now this last system is to be abolished and all must have at least a 'Chu Gakko,' middle school education.

For China at present I should think the best way would be for the medical schools to have a standard of examination which for a time would be a little elastic, so that men with a fair education might have the opportunity of studying medicine. The standard could be raised later as they are doing here."

Number three evidently corresponds to the method so common with us in China, i.e. the pupil-helpers in our hospitals.

Under the new regime in China things will move faster and it behoves us to be up and doing. Both in medical education and in hospital work we must raise the standard of our work, and to accomplish this more men and money are required. This practically spells union, and it is devoutly to be hoped all ideas of opening small schools will, for the present at least, be abandoned, and that all our energies will be concentrated on organising a few first-class schools. Students with an adequate preliminary education are comparatively few in number, the expenses of running a school are very great, and the difficulty in keeping up a sufficient staff of efficient teachers in view of the scarcity of workers, sickness, the language, etc., is enormous. It will be bad policy to have a large number of weakly-staffed and inadequately-equipped schools. It will be the true policy, and one leading to economy in men and money, to gather the teachers, students and equipment into a few thoroughly good schools. It is team work that is wanted and full teams at that. Bishop Bashford writing on the subject of overlapping recently said: "One fact has come upon me with overwhelming force during my sojourn in China and that is the rapidity with which the people are awaking. In the Ching Hwa Preparatory School near Peking (to prepare students for entering colleges in America) there are fourteen foreigners who are giving their entire time to teaching, in addition to the Chinese teachers employed. I do not think we have a so-called union university in which fourteen foreigners are devoting themselves
exclusively to teaching. Undoubtedly we have at Peking the best Union Medical College under Christian auspices in the Empire, but I am told by foreigners, who are teaching in that school, that it does not compare in appliances or the number of instructors with the school the Chinese have opened in Peking. The Japanese have so largely surpassed us in the material and mental equipment for work at Tokyo University that no college under Christian auspices in Japan is worthy to be mentioned by the side of Tokyo. A recent history of higher education in Japan has not even mentioned the missionaries, and on the author being asked the reason of this slight he shrugged his shoulders and remarked: 'The truth would only be disparaging, and charity suggested silence.' Unless, therefore, we Christians speedily cease our ruinous competition with each other, unite our efforts and standardize our work, it will be utterly impossible for us to set up hospitals or schools or colleges which will serve in any measure as standards for the Chinese, and which will enable us to help to cast the higher education and higher medical work of the Empire in Christian moulds. The necessity for cooperation—not perhaps for formal union, but for hearty cooperation—has so grown upon me in recent years that it seems petty for us to haggle over small differences, while all of us are losing an opportunity to render a priceless service to the Chinese Empire.'

The need for cooperation applies to our hospital work as well as to our medical education. The spectacle of several under-staffed and poorly-equipped hospitals in the same town should soon be a thing of the past. We on the field and the Boards at home should see to it that the medical staff in any district is sufficient to prevent two weaknesses in our work, i.e., closing the hospital during the doctor's furlough, and closing the hospital during the doctor's summer vacation. The former is bad enough, but what must the people think when the hospital they have learned to depend on is closed for several weeks just in the most unhealthy time of the year? We medicals on the field are to blame for not opposing the opening of new hospitals before the existing ones are properly staffed and equipped. We should resist the urgent calls to open new stations, as far as medical work is concerned, until the older hospitals and the medical schools are properly equipped in every way. There should be two doctors to each large hospital and at least three to every two smaller hospitals. It is gratifying to notice that some missions have recently taken steps to accomplish this, either by closing up some of their medical work or by increasing the medical staff.

P. B. COUSLAND.
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**Medical Progress.**

**YANGTSE RIVER (URTICARIAL) FEVER.**

The Statistical Report on the Health of the British Navy for the year 1909 contains two short papers (pp. 104-7) on this fever which, though long known on the Yangtse River under the names of Hankow, Shanghai, Kiukiang fever, has received little notice in medical literature. The fever lasts about a fortnight, the temperature varying rapidly from 102-103° F. to normal. The onset is accompanied by malaise, pains in the head and abdomen, urticaria, and itching. There may be dysphagia, cough and dyspnea, and even transient physical signs suggesting pulmonary tuberculosis, but no tubercle bacilli in the sputum. These symptoms may be due to an urticarial change in the mucous membranes. The blood has, in one at least of the cases reported here, shown a well-marked eosinophilia, but no parasites were found. The etiology and pathology of the disease are unknown; examination of the food and water has failed to show any cause. From its incidence in a number of men at the same time it would naturally appear to be of infective origin, and it has been suggested that it is in some way connected with freshly turned soil. It is stated to be entirely confined to the Yangtse river, and not to be mentioned in any textbook. — *British Medical Journal.*
HYPERTONIC SALINE AND PERMANGANATE IN CHOLERA AND DIARRHÉA.

Dr. Leonard Rogers, I. M. S., has recently spent several weeks in Palermo, where he has had the opportunity of testing under European conditions the system of treating cholera which proved itself so remarkably successful in his hands in Calcutta, where Dr. Rogers is professor of pathology. The treatment consists in the injection—intravenous or subcutaneous—of hypertonic saline solution, and the administration of permanganates by the mouth. By the use of the hypertonic solution alone he obtained a remarkable reduction in the mortality in Calcutta; among native patients the fall was from about 60 to 33 per cent. When the injections were supplemented by the administration of permanganates by the mouth, the mortality was further lowered to 23 per cent. In Calcutta the disease was much more severe in Europeans, and the results were not so good; it was therefore deemed very desirable to test the method in cases of cholera occurring in Europe. During three weeks in Palermo, where he lived in the cholera hospital and received every assistance from the Italian doctors, he had the opportunity of treating nearly seventy very severe cases in the collapse stage. The rate of recovery was between 60 and 70 per cent., a result better than he had obtained in Europeans in Calcutta. The solution which Professor Rogers recommends is composed of: Sodium chloride, grains 120; potassium chloride, grains 6; calcium chloride, grains 4; water, 1 pint. As a rule the solution should be given intravenously, although, should the blood pressure be fairly high—say, above 80 mm. of mercury—it may be given subcutaneously. If the blood is highly concentrated, as shown by a specific gravity of over 1063 (normal 1056), the injections should be intravenous. The quantity usually required for an adult is about 4 pints; but if the specific gravity of the blood is very high, as much as 6 pints may be necessary, but in that case the last 2 pints should be injected very slowly. As a rule one injection suffices, but should collapse return a second injection should be given, and may be followed by others. Professor Rogers mentions one case in which he found it necessary to give five injections, the total quantity of hypertonic solution injected being 20 pints. The injection is made into a vein laid bare at the bend of the elbow, or, if there be difficulty in finding a suitable vein in this situation, the large vein which usually crosses the internal malleolus may be chosen. A small silver cannula with a stopcock is tied into the vein, and connected by an india-rubber tube with a pear-shaped glass receptacle, graduated in ounces up to 1 pint. The whole apparatus must be sterilized by boiling. The fluid is run in by gravity, and the rate of flow can be regulated by raising or lowering the flask, or by manipulating the stopcock. The permanganate should be administered internally from the first. The simplest plan appears to be to make a solution of calcium permanganate (which is less astringent than the potassium salt) of the strength of 2 to 6 grains to 1 pint, and to allow the patient to drink this ad libitum. In addition, potassium permanganate should be given in the form of kreatin-coated pills containing 2 grains each. In adults one pill is given every quarter of an hour for the first three hours, and then every half hour until the stools become small and coloured green,
which usually occurs in about twelve hours, and is an indication of oxidation of the bile. By the use of the permanganate the toxins in the stomach and bowel are oxidized and converted into harmless substances. The results obtained recently by Professor Rogers in Palermo were particularly good in children, and with his present experience he is convinced that the mortality may be still further reduced by earlier and more frequent intravenous injections. The principles of this treatment would probably equally apply in the case of infantile diarrhoea, the solutions being injected subcutaneously, as they were effective in this way in some very young children suffering from cholera at Palermo.—British Medical Journal.

Hospital Reports.

**FROM THE SECOND ANNUAL REPORT ON REFORMS AND PROGRESS IN KOREA—H. I. J. M’S. RESIDENCY.**

**Medical School.**

From the school attached to the Tai-Han Hospital, thirteen students graduated in July, 1907, and seven in July, 1908. The graduates from this school are permitted to practise medicine. Up to 1908, there had been fifty-four graduates from the school, among whom twenty-two are practising medicine; six are serving as apprentices in the Tai-Han Hospital; two are teaching in the medical school; six are officiating in Private Hospitals; five are acting as Military surgeons, and two are studying in Japan.

An entrance examination was not held in 1908, as there were no qualified candidates in that year. The school is careful in selecting students for this important profession, and an applicant for entrance examination is required to possess certain specified qualifications. At the entrance examination held in March, 1909, there were 450 applicants, among whom only fifty successfully passed the examination.

**Official Recognition of the Medical Service.**

There are numerous native physicians, claiming to be doctors, who know nothing beyond old Chinese methods, using ginseng principally, and other dry roots of plants. Physicians of this kind number as many as 2,659 throughout the country. The Korean Government issued Regulations for the control of Physicians in 1900, the object being to eliminate incapable physicians by giving official recognition to those qualified. But these regulations were pigeon-holed and never carried out.

The establishment of the Medical School attached to the Taihan Hospital is simply a measure to train competent Korean physicians. But graduates from this School being very limited, the Government has decided to recognize even graduates of a private Medical School which is deemed competent.

A certificate of Official Recognition for the practice of medicine was first given by the Home Department to the seven graduates of the Medical School maintained by the Severance Hospital in June, 1908, after inspecting their qualifications and the work done in the School and Hospital.
The Chinese Red Cross Society.

On October 14th, the hospital and college of the Chinese Imperial Red Cross Society was formally opened, and with this event it is to be anticipated that the work already started under these auspices will be enlarged and amplified. The buildings of this institution stand in their own grounds in Sicawei Road, a short distance from Bubbling Well, and when in full occupation and use they will be almost unique in the annals of Shanghai. They have been in existence for about a year, but, pending the completion of all arrangements, their utility has been limited to the reception of a few patients and the instruction of a small class of eight Chinese students. Everything is now in readiness for work on a greater scale, and for the future it should be the scene of much activity, not only in the great labour of healing the sick and the injured, but equally in the training of Chinese doctors.

The Hospital.

The hospital building is one of two storeys, and is reached from the road by a short carriage drive. Entering the grounds, the hospital is on the right, while on the left is a residence for students engaged in medical work. On the ground floor of the main building is a large reception room. Immediately behind is an office for the doctors, while to the right are the rooms for out-patients. Ample accommodation for these is made, and one of the rooms contains an operating table where minor operations can be performed. On this floor is also to be seen a store-room. The laboratory is at the back, and close to it are the lecture rooms. In one of these, last year, anatomical specimens of the usual gruesome description were to be seen, as well as other indications of active inquiry into the mysteries of medicine.

The first floor is the more interesting, for here is the operating room proper, as well as an operating theatre; all the instruments for use in these rooms, such as the tables and similar apparatus, have been imported from Copenhagen, and are most up-to-date. The theatre is a large-sized apartment, three sides of which are glazed. In the centre is the table, and at one end the space set apart for the students—a raised gallery, whence they can observe all the delicate work of the surgeon's knife. The wards on this floor are spacious and comfortable. The first-class rooms look out on verandahs, and the only difference between these and the second class is that the latter have a couple of beds in place of one. One of the second-class rooms, which is bigger than the others, contains room for three inmates, so that altogether seven second-class patients can be accommodated. As many as twenty-four third-class patients, who may be expected to be of the coolie class, will find room here, all in wards which will give them more comfort than they ever had in all their lives.

Work of the Hospital.

The matron of the hospital is Miss Christensen, who arrived from Denmark a few months ago. She has, of course, undergone a thorough training in the hospitals there, and part of her duties will be to instruct Chinese boys in the art of nursing. The foreign doctors in charge of the hospital are Dr. Cox, Dr. Olesen and Dr. Thue, and while they are carrying on the good work of saving life and restoring health, they are also instructing the students in surgery and medicine. The Chinese physician in at-
tendance is Dr. Wang, who resides close by. This hospital will be welcomed as an addition to the number at present carrying on work, the more as it is now ready to receive a bigger complement, while from an educational point of view it is of even greater importance.

Opening Ceremony.

Prior to the formal opening ceremony, H. E. Sheng Kung-pao held a reception, which was attended by representatives of the Consular Body, and a number of Foreign residents. Among those present were H. E. Shen Tun-ho, (Director), H. E. Sze Tze-ying, (Treasurer) H. E. Jen Fung-sing, H. E. Jen Fung-pao, Mr. Chu Li-chee, Dr. Cox, Dr. Haus Thue, Dr. Birger Olsen, and Dr. B. Y. Wong (House Surgeon).

H. E. Shen Tun-ho briefly outlined the history of the Society, organized to relieve the distress in Manchuria consequent upon the Russo-Japanese war. The students now numbered twenty, and it was hoped, he said, they would find in this combined College and Hospital ample opportunity for the study of medicine. Twenty students had been sent by the society of the Deutsche Medicine School. Thus medical science, both English and German, was busy educating them as competent doctors. Relief had been given to no less than 565,000 refugees in Manchuria.

Apart from these operations, the society, jointly with the Chinese Public Isolation Hospital, started a branch hospital in Tientsin Road. When an epidemic broke out in the famine-stricken districts of Anhui and Kiangsu, over 67,580 sick refugees received medical and monetary aid through their hands.

Dr. Cox said that when the medical staff of the College was first appointed, nearly one and a half years ago, they represented to the Governing Body the vital necessity of a Hospital in connexion with it, and this was at once recognized by the committee. The necessary changes had been accomplished most successfully. Primarily, the object of the institution was to relieve suffering, and then came the teaching of Chinese students, as far as possible on the lines of Western education. Dr. Olsen was entitled to every praise for the attention he had given to the surgical work of the College.

With great regret we have to report the death of Dr. Olsen in Hankow, December 12th, while on Red Cross work. Ed.
thorough overhauling and repairing, and it cannot be delayed any longer. This will take about six months, and after that the Hospital will be running at its full capacity.

The foreign staff has been greatly strengthened by the arrival of Dr. H. H. Morris, of Philadelphia. For the present year Dr. Morris will confine his energy to studying the language and teaching in the Medical School. During July he had charge of the Hospital and will start in regular work next summer.

Miss A. F. Gordon arrived in September and has joined Miss Bender on the nursing staff, and has thus made the Hospital stronger in this department than at any time in its history. She also is at present at work on the language, but at the same time is relieving Miss Bender of some of her many jobs.

The news of Dr. Boone is not very definite as to the time when he will be able to return to China and once more join in the work. He has improved a good deal since going to America, but still is not strong enough to come back.

Dr. Jefferys, who had been away for a year and a half, arrived back in Shanghai just after the year closed. He was looking like a different man and was very keen to get back into the work. But to his and our great disappointment, after staying here for a month, he found it necessary to give up living in the Orient, and returned to America in November. His resignation came as a terrible blow both to work in the Hospital and in China and to those who have been associated with him. Since his arrival in China eleven years ago he has put his whole life into the development of the Hospital and the medical work throughout China, and has become recognised as one of the leaders in medicine and in medical education in the East. The Hospital, under his charge, has taken tremendous steps in advance and will always feel his influence, and we feel sure that we shall always have his interest and sympathy with us in the work.

The Chinese staff has also seen some changes during the year. Dr. Waung, after a year and a half's faithful service, resigned. During the summer Dr. Chen joined the staff, filling the vacancy made by Dr. Waung's resignation. Mr. Hoong joined as druggist, thus increasing our staff and releasing the doctors from this work. It would be hard to say enough in regard to the faithfulness and efficiency that has been shown by the whole of the Chinese staff, and this has been especially appreciated during the past year when the foreign staff has been so short-handed. The co-operation has been perfect and they have always fulfilled the trust that we have put in them.

The spiritual welfare of the Hospital has, as heretofore, been under the care of Archdeacon Thomson and Rev. Mr. Wong. Their influence has been felt throughout the whole institution. This was especially noticeable in the Boys' Ward.

The nursing department has continued to improve under Miss Bender's care. The work of the Chinese nurses has become much more efficient, and this is especially true of the work in the operating room. We are glad to say that Miss Gordon has arrived and will thus relieve Miss Bender of some of her very heavy work.

The equipment of the Hospital has been much improved by the arrival of a new set of sterilizers, a gift of some friends in America. The set consists of a hot and a cold water, an instrument, and a utensil and dressing sterilizer. They are beauties and the sterilizing room was just able to hold them. It
is the first time that we have ever had the complete set and they have long been wanted.

Financially we came nearer than ever before in ending on the wrong side of the balance. But we finally ended the year with a balance of about twenty dollars. This leaves a pretty small margin to start the new year with. Both our receipts and expenses were about two thousand dollars less than last year's. The full financial statement will be found at the end of this Report. The foreign community has been most generous in their support, in spite of the famine, etc., appeals that have been made during the year. The Honorary Visiting Committee has continued to take an active interest in the work. Through its efforts the Chinese subscriptions have continued large and generous, and it was largely due to their efforts that we were able to finish the year without a deficit, which we feared at the beginning of the summer.

The medical work was quite seriously interfered with by the riots that broke out in Shanghai in the fall. This made a slump in the work for about three months, and in consequence we had a falling off of about a hundred and seventy-five in-patients. Owing to the unusual large clinic that we had during the early fall and the summer, the total number of patients shows a slight increase.

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HOSPITAL NOTES.

Dr. J. L. Maxwell of the English Presbyterian Mission, Tainan, Formosa, writes in a letter of November 3rd: "We have been having a rough time with the biggest typhoon ever known in Formosa. Lost part of my operating theatre-roof and a large part of the roof of the nurses' home, but happily losses are slight compared with those in the country generally."
To the Editor of "The China Medical Journal."

Dear Mr. Editor: I have read with great interest Dr. Wills' letter on Salvarsan in the November Journal. It is certainly difficult to understand how Salvarsan could be "derided" by any one who had used the drug at all. Whether its results are permanent or not I suppose it is too soon to say, but its immediate effect on syphilitic eruptions is simply marvellous. I am writing because I have not used the intravenous method which is certainly troublesome, and unless it can be proved to be more effective, has not a great deal to recommend it over the intra-muscular method. And it is because I have not had the trouble with this method that Dr. Wills complains of that I venture to give my experience. The way I use the drug is as follows:—

Under strict aseptic precautions, a solution of salvarsan, 0.6 grams for men and 0.4 grams for women, is made in from 8 to 10 c.c. of plain distilled water. The back, between the scapulae, is painted with tincture of iodine, and the solution, drawn up in a "Record" 15 c.c. syringe, is injected deeply into the muscles of the back, the shoulders being drawn back to relax the muscles at the time of injection. The pain at the time of injection varies from practically nil to, at most a very moderate degree. Some swelling of the injected muscles always ensues with considerable tenderness for three or four days, but the patient is able to lie comfortably on his bed. I have now given nearly fifty injections without any untoward symptoms in a single case. With reasonable care there is no danger whatever of sepsis. One warning, however, should be given. The injection must be intra-muscular and not merely hypodermic. I have seen a case injected by a Japanese physician where the injection had been only hypodermic in the interscapular region with the result that many months after the injection had been given a big indurated lump was still present in the skin and showed no signs of resolving.

I am,

Yours truly,

James L. Maxwell.

Tainan, Formosa.

4-12-11

December 7th, 1911.

To the Editor of "The China Medical Journal."

Dear Dr. Davenport: Your letter of October 3rd to Dr. Aspland was recently turned over to the out-going secretary of the Peking Medical Society, Dr. Dilley. He issued a call for a special meeting of the Society to act upon the suggestions of your letter. A large number of our members are off for the south in the Red Cross work, but enough were left to get a start made. A condensed report of our meeting follows:

The Peking Medical Society held a special business meeting on December 4th, at the Union Medical College. The following officers were elected to serve for the ensuing year, that is till May, 1912. President, Dr. E. J. Peill; Vice-President, Dr. W. H. G. Aspland;
Correspondence.

Dr. Davenport's letter to Dr. Aspland, in regard to the coming triennial medical conference, was read and discussed. It was decided that, if the proposition which has been made in government circles for the change from the old style to the Gregorian calendar goes through, thus bringing Chinese New Year on January 1st, 1913, and if, as at present, the through Hankow train arrives in Peking on Saturday, then we fix upon Saturday, January 11th, as the date for assembling, and that the conference sessions begin Monday, the 13th, and continue for four days, that is, through Thursday, the 16th. The plan is to have two sessions daily, one in the forenoon, and one in the evening, leaving the afternoon free for sight-seeing. It is the understanding that if the change in the calendar be not made, then the date for assembling be fixed as the second Saturday after Chinese New Year, this also, however, to be conditional upon the day of arrival of the through train from Hankow.

This is, of course, rather indefinite, but you will understand that with the present uncertainty we cannot fix the exact date.

Will you kindly announce, through the columns of the Medical Journal, the action taken by our Society, and extend to all the members of the national organization a hearty invitation to be present. We may not be the capital of China by that time, who knows? but at any rate we believe that we can make it worth the while of the medicals of China to spend a little time in Peking. It is none too early to begin planning for the programme. If any one has suggestions, please send them in early; if any one of you is doing a piece of work which you think would be of interest to the rest of us, please send in your name that we may put you down for a paper. Our programme committee is not yet organized, but for the present, communications may be addressed to the Secretary of the Peking Society, Dr. F. J. Hall of the Presbyterian Mission, who will turn them over to the programme committee when it is formed.

Sincerely yours,
F. J. Hall.

To the Editor of.

"The China Medical Journal."

Dear Sir: Permit me to convey, through the medium of the China Medical Journal, my thanks to the several doctors in the different provinces of China, who have been kind enough to reply to my series of questions regarding the uses of morphia and cocaine. Many of the replies were exceedingly full, and the opinions expressed by my medical brethren will be made use of, as far as practicable, when the time comes for the control and eradication of this great evil.

Thanking you in anticipation,
I remain,
Yours faithfully,
Wu Lien-teh, M. D., (Cantab).
Personal Record.

BIRTHS.

At Paoning, Szechwan, September 26th, 1911, to Dr. and Mrs. C. C. ELLIOTT, C. I. M., a daughter (Elizabeth Palmer).

At Kilteman Llandaff, South Wales, October 22nd, 1911, to Dr. and Mrs. H. S. JENKINS, E. B. M., Sianfu, Shensi, a son.

At Chefoo, December 6th, 1911, to Dr. and Mrs. B. C. BROOMHALL, of Taiyuanfu, Shansi, a son (Alfred James).

At Shanghai, January 10th, 1912, to Dr. and Mrs. P. LONSDALE MCALL, L. M. S., Hankow, a daughter.

DEATHS.

RUSSELL WATSON.—On December 2nd, 1911, at a Nursing Home in London, Agnes Russell Watson, L.R.C.P., the beloved wife of James Russell Watson, M.B., M.R.C.S., the English Baptist Mission Hospital, Tsingchoufu, Shantung, in the 56th year of her age.

ARRIVALS.

At Shanghai, Dr. and Mrs. MARTIN R. EDWARDS, Harvard Medical School, Shanghai, in December.

In January, Dr. and Mrs. SHARP, Dr. and Mrs. EGGERS also of the Harvard Medical School.

DEPARTURES.

November 6th, Dr. and Mrs. EXNER and children, Y. M. C. A., for America.

November 13th, Dr. and Mrs. JEFFERYS and family, A. C. M., for America.

November 28th, Dr. and Mrs. F. ALLEN, C. M. M., Szechwan, for America.

WANT DEPARTMENT.

[It is hoped this new departure will approve itself to the Association. Subscribers are invited to send short notices of personal, missionary and professional "wants," free of charge. Such notices will be kept in for a reasonable time or until withdrawn.—EDITOR.]

"LOCUM TENENS wanted for six or seven months during next year, 1912, a British Qualified Man to take charge of the MATILDA HOSPITAL, HONGKONG. Apply to Dr. J. Herbert SANDERS for particulars."

I can strongly recommend to all members of the association Japanese absorbent wool which can be procured through the Shanghai Dispensary, 586 Foochow Road, Shanghai. It is bought of a reliable firm, and after using some cwts. of it I can confidently recommend it. Price 65-70 Mex. cents a lb. according to quantity purchased.

C. J. DAVENPORT.