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Colloid Tumor of Thyroid—17 months' growth.

Inseparable Sarcoma of Right Shoulder Joint.

[See Page 273]
TREATMENT OF THE OPIUM HABIT.

By J. A. Otte, M.D., late of Amoy.

One of the most marvelous national movements of history is the present crusade against opium here in China. More than ever before it behoves every physician practicing here to become conversant with the best method of treating opium smokers.

In order to meet the present situation, it seems to me that we should reconstruct some of our ideas, so that we may intelligently treat those who come under our care. We must be prepared to give up preconceived notions if these do not now seem to meet the conditions. We should have an open mind and be ready to meet the situation squarely. It is on this account that I undertake to write this paper. It will not be as well worked out as the subject warrants, but with the multiplicity of my duties, it is absolutely impossible for me to undertake some of the research work I deem necessary in order to scientifically demonstrate some of the opinions I hold as the result of long experience with opium smokers. If, in stating my views, I appear to strongly oppose those of others, I hope you will bear with me, remembering that some of my strongest opinions are the result of combating an evil in the church, which at one time threatened to destroy most of its spiritual life.

In this paper I intend to limit myself to the consideration of the treatment of opium smokers only. I will exclude even the treatment of opium eaters.

The first question we must try to settle is whether opiumism, the result of using the pipe, is the same as morphinism, the result of taking morphia either by mouth or hypodermically. Is opiumania, from the use of the pipe, the same as morphinomania resulting from eating or
injecting morphia? I know that the majority of missionaries consider them to be similar. While I admit that opiumism, as we find it here, should be put in the same class as morphinism, yet I deny their similarity in degree, and in many cases, I believe, there is even a difference in kind, though the latter is difficult to prove. It is important that this difference should be borne in mind when we come to discuss the treatment. As regards opiomaniacs, there are but few of these compared to the vast number of opiumists. The relative proportion of morphiomaniacs to morphinists is much greater. It is much more difficult to become an opiomaniac by the use of the pipe than it is to become a morphiomaniac through the use of morphia. Only neuropaths become opiomaniacs through the use of the pipe.

We are called upon to treat two classes of cases, viz., those suffering from opiumism and the opiomaniacs. In defining these conditions I will adapt my definitions from those given in Crothers' book on morphinism.

The first class of cases, forming more than 99 per cent. of those we meet and treat—the opiumists—are those who suffer from a defective physical condition due to the prolonged use of the pipe. These also very frequently suffer from different psychoses. The treatment of these cases is generally simple, and the "cure," if the cause can be removed and the environment made favorable, is often permanent.

Opiomania is the condition of persons in whom the impulse to the use of the pipe is in the nature of a mania, possessing the mind and dominating every thought. I deem it almost useless to treat these cases. For them there is almost no hope except through supernatural means, or, possibly, through the influence of mental suggestion.

Morphia is carried over dissolved in the watery vapor of opium smoke. Some say that it is sublimed and carried over in this way. That it is carried over was chemically proven by Dr. Lim Bun-kheng, of Singapore, who tested the solution of the smoke blown into water. Sixty per cent. of the alkaloid is retained in the pipe stem. (McAll, China Medical Missionary Journal, January, 1903.) Another portion of the alkaloid is exhaled. But a small portion is absorbed into the system. McAll thinks that only from one-fifth to one-fourth of the alkaloid in the drug used is absorbed by the system. Smokers use from 1 dr. of the prepared opium per day up to 1½ oz. in the same time. Park gives one case using 3,500 grains per day by mouth and pipe (Medical Missionary Journal, May, 1905). But this is such an exceptional case that it need not enter into our
calculations. Those using more than 1 oz. are exceedingly rare, and the number using up to an ounce are very few. Three drachms a day is the average amount used per day in this region. Rochester, J. A. M. A., January 30th, 1909, gives 11.25 grams as average of all cases treated. Therefore taking McAll's calculation as a basis, we may say that those using 1 dr. per day of Szechuan opium should be compared to morphinists using about \( \frac{1}{2} \) gr. per mouth or 1/4 gr. hypodermically. Those using 3 drs. are equivalent to morphinists using \( \frac{3}{4} \) gr. per day hypodermically. One ounce by the pipe is equal to 2 grs. hypodermically. In those using the same weight of Indian opium, I think, I am making a liberal allowance if I increase the above amount of morphia by one-third, giving the lighter smokers one-third of a grain by the syringe and the heavier smokers (1 oz.) three and one-third by injection. These proportions are certainly high enough to stop all cavail. Allbutt, in his System of Medicine (Vol. II, p. 884), says that twenty pipes is equal to 1 gr. of morphia "burned" per day. Now taking the average given by McAll used each time the pipe is used as 6\( \frac{2}{3} \) ggrs. (3 to 10 ggrs.) twenty pipes would mean 2\( \frac{1}{2} \) drs.; or, according to our calculations, \( \frac{2}{3} \) ggrs. by injection. As 1 gr. "burned" is, according to McAll, equal to 1/4 gr. absorbed (or less), Allbutt's estimate of the amount of morphia absorbed from 2\( \frac{1}{2} \) drs. of opium smoked is less than one-third of our estimate. We may, therefore, conclude that the morphia equivalent we have allowed is quite liberal. This is still further borne out by the fact that, when McAll says 50 minims of the liq. morphia (1 p. c. sol.) satisfies the cravings of those using 1 dr. of the prepared opium he admits that "it is rarely necessary to give the full equivalent: 40 minims, or even 30, answer in ordinary cases."

Lambert, in his article, "The Obliteration of the Craving for Narcotics" (J. A. M. A., September 25, 1909, p. 987) gives the amount of morphia injected by eighteen of his patients. In his list he states grams, but must mean grains, as it is not conceivable that a human being could possibly inject as high as 30 grams per day and live. The average amount injected by his eighteen patients was 10 ggrs. The highest was 30 ggrs. The lowest 1 gr. per day. Hence we may conclude that the average opium smoker using 3 drs. a day (thus covering more than 75 per cent. of the habitués) absorbs less morphia a day than the mildest morphinist, while the worst cases (a very, very few excepted) absorb only one-third of the average amount used by morphinists. In neither class of cases have we taken the extreme users, for it is well known that there are as many morphomaniacs
using 100 grs. a day as there are opiomaniacs using 3,500 grs. a day by mouth and pipe. I am, therefore, conservative in stating that the vast majority of our patients (more than 90 per cent.) should be treated as the mildest morphinists. Clinical experience verifies this statement.

Opium smoking, I believe, also differs in its effects from opium eating and the use of morphia. Clinical experience has taught me that it is the lesser of the three evils, though why this should be so I cannot state. To give the scientific reasons for this would require an amount of research quite beyond me. It is quite possible that the antagonistic effect of the bain (Reference Handbook of Medical Sciences, Vol. VI, p. 386) makes it less harmful than when an equivalent amount of morphia is taken alone. The pyrodine and picoline formed when smoking opium must be the result of the destruction of some of the other, more harmful alkaloids, otherwise absorbed. This must be borne in mind when, by substitution for cure, we teach our patients the use of other, more dangerous, drugs.

In treating opium cases we should also bear in mind the cause of the disease. As given by our patients these are two, viz., first, the mitigation of disease and pain among the latter classing mental and physical pain and the suffering caused by tissue starvation due to chronic disease and insufficient nourishment. The second class of cases give the desire for pleasure the cause of the habit. The greater majority of cases, in this region, fall under the first division. In treating these we must bear in mind, before and beyond all else, that the cause must be treated; and, if possible, removed. If a malarial case cannot be freed from his suffering, he is almost certain to return to the habit after the craving has been removed. This has an important bearing on the time the patients should remain under treatment in the hospital. Again, if one whose mental agony is beyond his power of endurance, unless some comfort beyond what his surroundings can give him is introduced into his daily experiences, a return to the drug is almost inevitable. It is in such cases, even more than in others, that the healing power of divine love is essential. In considering the treatment of the gross physical cause for the habit I might go to great length, but the object of this paper does not require this.

The second class of cases, those who state that they began the habit for pleasure, in the majority of cases, do themselves an injustice in assigning this cause. Even in "heathendom" it is only the pervert who will, for simple pleasure, enter into a condition of physical existence universally recognized as wrong and harmful, simply for
temporary pleasure. We need not now discuss whether the opium habit is harmful. The day is past. The present national crusade is at once an absolute refutation of all commissions which try to prove its harmlessness. Here, as at home, it is always, or at least nearly always, an exhausted physical or nervous system craving temporary rest which leads to drugs or drink. Let the restraining influences of a good environment be withdrawn, and the natural tendency to seek rest and mitigation of nervous unrest at once takes possession, and habits are contracted. For example, look at the way the influence of the East casts down some of the best men home lands have sent out here. I claim that the Chinese are largely a nervously exhausted people; exhausted by the stress of poverty, the strain of living under governors, who, like vultures, are ever ready to pounce upon the unprotected. A fatalism covers up the signs of this nervous exhaustion, but this want of expression makes it all the more harmful and difficult to bear, thus leading, all the more readily, to the opium habit. China is to-day so largely a race of opium smokers because of physical and nervous exhaustion. Bear this in mind when treating your patients, and also, when at home, you speak of the failings of the people among whom you dwell. There are moral perverts, moral lunatics, who take to opium as the sexual perverts indulge in moral enormities. But these are the minority, and their treatment belongs to the alienist.

Again, in treating opium smokers we must bear in mind the pathology, as far as we can form an idea of it, and also remember the most prominent symptoms, though we need not here enter into their detailed discussion. The pathology is somewhat different from that in morphinists. I do not agree with Crothers that "the higher brain-centres seem to be more thoroughly broken up and the power of control more feeble" in opium smokers. (Crothers, p. 214.) This was probably true in the cases he saw, but the opium smokers found in the U. S. are, necessarily, of a lower strata in the ranks of vice than the morphinists, as it is a habit much less in repute. This is not the case in China. I admit that the opium smoker generally looks worse than the morphinist absorbing an equal quantity of morphia. I believe, though I cannot prove it, that opium smoking has a greater tendency to cause destruction of the red blood cells (chromatolysis), thus causing a deposit of pigment in the tissues. This will account for the dusky hue of so many opium smokers. There is also, probably, a slightly greater disturbance in the absorptive power of the intestinal mucous membrane, causing a loss of nourishment. I believe morphia is more destructive in its action upon every part of the nervous system as well
as upon moral and psychic activities and their coördination to the rest of the body's needs. Both the opiumist and the morphinist suffers from anorexia. In the opiumist the constipation is worse. Cachectic anæmia and muscular weakness is prominent in both, but muscular tremors, indicating severer lesions, are worse in morphinist. Opium smokers seldom suffer from miosis (permanent) as do the morphinists, and in the former I have never seen mydriasis, a symptom the confirmed morphinist often suffers from. Impotence is found in both classes, but I am inclined to think that in opium smokers amenorrhœa is more common. Cardiac intermission is rare in opium smokers, though brachycardia is very common. Except when in the act of smoking, or directly afterwards, there are no simple elementary illusions in opium smokers as there are in morphinists. Hallucinations are also absent in opiumists (Crothers, p. 199). In opium smokers, as compared with morphinists, there is less loss of will and esthetic sense, irritability and moral perversion. Except in extreme cases the power of attention is but slightly diminished, there is generally no incoherence of ideas, though the mind is easily fatigued. In morphinism the tendency to hysteria and neurasthenia is more pronounced.

While the pathology of opium smoking is not clear, yet there are theories, with clinical experience behind them, which can help us to determine the line of treatment necessary. Some think that in the opium habit the system continually forms an antitoxin which in itself is a poison when the opium is withdrawn. Hence the symptoms of opium hunger. Others think that in opiumism there is an autointoxication.

Another theory is that in chronic opium poisoning some of the effete products of metabolism are locked up in the tissue cells. When opium is suddenly withheld these are thrown into the system in excessive quantities, causing poisoning.

I believe that all these theories contain elements of truth, and hence they point to the eliminative form of treatment, and also give the reason for the diarrhoea which so often follows the sudden withdrawal of opium. This is nature's method of throwing off noxious matters.

Dr. Arthur Gamgee in the Lancet of September 12, 1908, explains the distressing symptoms resulting from the withdrawal of morphia as follows: "However introduced into the body morphia rapidly makes its way into the lymph; at first a sedative effect is produced on the cell; there is a feeling of quiescence, a disposition to sleep. If the administration is continued for weeks the composition of the lymph, i.e., the
Treatment of the Opium Habit.

environment of the cells, is persistently altered. Like trypanosomes of sleeping sickness, which in time become habituated to atoxyl, the cells ultimately adapt themselves to the change of environment and become dependent on it. As long as the supply is maintained they are in a condition of physiological happiness. When the amount of morphia disappears or ebbs the cells are under the influence of a real, though adventitiously produced, morphine hunger, and agonising distress results. This theory, certainly favors the gradual reduction of the drug, but for many reasons, the light morphinists, to whom our opiumists may be compared, do not so seriously suffer from the morphine hunger as to necessitate the gradual reduction method in ordinary cases.

The main symptoms we have to treat in the cases falling to our care are: Pyrosis, vomiting, diarrhoea, slight respiratory disturbance, occasional tremor, general debility, pollutions, insomnia fidgets, restlessness, occasionally twitchings of the legs, and very occasionally threatened collapse in the very aged, or exceedingly debilitated. This collapse, in the opium smoker, in itself does not endanger the life of the patient. In an opium smoker I have seen it but once, in a case to be related in another section of this paper. The anorexia, which practically all opium smokers suffer from, is increased the first few days after the drug is withheld, and very soon changes into a delightful longing for food.

Now, having, I hope, cleared the ground by removing possibly mistaken theories, the question how to treat opium smokers is more easily answered.

Before taking up this part of my subject, let me once more state that I consider opium smokers light morphinists. I hold, also, that opium smoking is not so harmful as opium eating.

The methods of treatment in vogue are:—

I. Substitution and the gradual diminution of the substitute.

II. Gradual reduction of the drug, but substituting opium eating for the pipe during the course of treatment. One case reported (a foreign trained native doctor) stated that he continued the use of the pipe for a few days, gradually reducing the number of pipes. Under favorable circumstances this seems the safe and most rational method of treatment after—

III. The sudden withdrawal method.

Dr. Hume, our chairman, kindly sent to all the members of our association a list of questions I had prepared on the subject in hand. To these I received 69 available answers. Two of these were from Chinese physicians, trained in our hospitals. One of these wrote that he treated one thousand patients a year, but an unstated number of
these are treated in their homes. They come to the hospital at stated intervals for a supply of an opium preparation. Now we all know, by sad experience, that these cases almost always come only to get for nothing a supply of the drug to which they are addicted. I do not believe that ten per cent. of these cases are "bona fide" cures. But for the sake of preventing criticism, I have considered and included these statistics in a portion of my discussion.

One physician, who reported treating six per month, said that he used substitution, but that, if he had a refuge, he would use the sudden withdrawal method. This report has been included in the class "Substitution."

The 69 available reports were divided, according to the method of treatment, as follows:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Average per Year</th>
<th>Total per Year</th>
<th>No. of Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Substitution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Substitution in some and gradual withdrawal of the opium in others. The eating of opium being substituted for smoking</td>
<td>28</td>
<td>546</td>
<td>19</td>
</tr>
<tr>
<td>(b) Substitution of codeia and gradual withdrawal of the drug</td>
<td>22</td>
<td>178</td>
<td>8</td>
</tr>
<tr>
<td>(c) Substituting a mixture of opium and crotonium spondiacum, which, according to the British Medical Annual for 1909, p. 20, is the so called Malay remedy</td>
<td>9</td>
<td>9</td>
<td>1</td>
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<tr>
<td>II. Gradual withdrawal of the opium. In one case the number of pipes was gradually diminished, while in the others opium eating was substituted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Sudden withdrawal of opium</td>
<td>128</td>
<td>1,663</td>
<td>13</td>
</tr>
<tr>
<td>(a) Sudden withdrawal in all but those giving dangerous symptoms</td>
<td>56</td>
<td>1,305</td>
<td>23</td>
</tr>
</tbody>
</table>

Now if we still further diminish the classes into those who suddenly withdraw all narcotics and those who use narcotics in gradually diminishing quantities we get the following:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Average per Year</th>
<th>Total per Year</th>
<th>No. of Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Gradual withdrawal of narcotics</td>
<td>2,646</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>II. Sudden withdrawal</td>
<td>1,502</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

If we throw out the report where opium was given for consumption at home we get:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Average per Year</th>
<th>Total per Year</th>
<th>No. of Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Gradual withdrawal of narcotics</td>
<td>40</td>
<td>1,646</td>
<td>41</td>
</tr>
<tr>
<td>B. Sudden withdrawal of narcotics</td>
<td>55</td>
<td>1,502</td>
<td>27</td>
</tr>
</tbody>
</table>

It seems then that the majority of foreign physicians use either the substitution or gradual withdrawal method. But it is also evident that the majority of foreign physicians having, with one exception, largest practice, individually, and hence the larger experience, use the sudden withdrawal method. Excluding the report of the Chinese physician supplying opium for home consumption, but including the report of the
Chinese physician who, in a regular opium refuge, treats his cases by a gradual decreasing number of pipes, we see that those using the gradual withdrawal method have an average of 40 patients. If we exclude all Chinese reports (the one supplying opium for home consumption, treating one thousand per year, and the other using opium by pipe and treating 397 per year) we find that those using the gradual withdrawal method have an average of only 31 patients per year. Those using the sudden withdrawal method have an average of 55 patients per year. We might also further consider the success of each class. But the statistics given on this point were, with one or two exceptions, "guesses," and hence very unreliable. Many of the reports do not even venture to make an estimate of the number permanently cured. Some give as low as five per cent. as the number permanently cured. This is probably too low. One considers that the percentage of cure is 99, while two others give 90 per cent. These last are absolutely impossible results.

To return to the matter of treatment:—I. Substitution, with gradual withdrawal of the substitute.

The details of this treatment I need not go into. Those who use it are only too well acquainted with it, and I do not wish to help those who may be tempted to adopt it. Taking into consideration that the worst opiumist, by the pipe, is only equal to the mildest user of morphia by injection, I deem this method unnecessary, for cure without it is very possible. In substituting morphia for opium we put before the Chinese a drug which, in its power for evil, is beyond measure greater than opium smoking can ever become. For some years more morphia was imported into Amoy than in any other port outside of Shanghai. The statistics for some of the past years are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total ounces imported into Amoy</th>
<th>Per cent. increase or decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>460</td>
<td></td>
</tr>
<tr>
<td>1892</td>
<td>1,372</td>
<td>Increase, in two years 197%</td>
</tr>
<tr>
<td>1894</td>
<td>2,788</td>
<td>Do. 103</td>
</tr>
<tr>
<td>1896</td>
<td>6,490</td>
<td>Do. 132</td>
</tr>
<tr>
<td>1898</td>
<td>11,810</td>
<td>Do. 83</td>
</tr>
<tr>
<td>1900</td>
<td>16,776</td>
<td>Do. 42</td>
</tr>
<tr>
<td>1901</td>
<td>12,435</td>
<td>Decrease due to the war.</td>
</tr>
<tr>
<td>1902</td>
<td>19,906</td>
<td>Increase in two years 18%</td>
</tr>
</tbody>
</table>

In 1903 there was a sudden falling off; only 3,101 ounces being reported, while in the following year only 8 oz. were reported, since when practically nothing is reported, except in 1908, when eight hundred oz. were reported; this amount having been seized from
smugglers. At present it is being smuggled into the port in milk tins, etc., but so adroitly that the authorities cannot find it. Though nothing is reported as entering, yet morphia can easily be purchased here at but slight increase in the original cost. The sudden reduction in the above statistics was due to government interference and government prohibition of the drug.

This large importation of morphia into Amoy was largely due to the fact that one physician not only taught his students the use of the drug for the cure of opium smoking, but also supplied them with the drug. Many of these students became prominent in the church. They in their turn taught others the use of morphia for the cure of opium smoking. Thus all through this region morphia became, to very many, a continued substitute for opium; the poor deluded sufferers considering themselves cured of a bad habit. The evil became so great that through its native doctors many of its evangelists and some of its native ordained ministers selling this drug, the church became a veritable curse to the people. After years of struggle on the part of the foreign physicians the native church courts made the selling of morphia, for the cure of opium smoking, a cause for discipline. Now, in spite of the fact that the government has put morphia on the prohibitive list of imports, yet, on good authority, I am told that there are prominent church members who ruin their own souls and destroy the bodies of others by smuggling and selling large quantities of morphia. Now that morphia has been put on the prohibited list, a worse drug is taking its place. Last year (1909) 20,267 oz. of cocaine were imported in Amoy, largely by Christian firms. This was an increase of 9,027 oz. on the importations for 1908. Thus a new and greater danger looms up before us, all the indirect result of the use of morphia for the cure of the opium smoking habit.

If my argument, that the substitution of morphia for opium in the cure of the opium smoking habit, is not a necessity does not appeal to you, let me give you the experience of the native church in Amoy. If the evil of morphia must come, let it not be introduced by the "Messengers of Light." Leave it to the numerous conscienceless Japanese pedlers, who now freely go about the country selling morphia pills for the so-called cure of the opium smoking habit. You cannot hide from your students what you are using for the cure. Your patients, too, will soon find it out. These will not be restrained, as you are, from the illegitimate use of the drug. Having gone through the fight, trying to remove this monstrous evil from the church, a fight not yet entirely won, I unhesitatingly say I would rather see my
brother who use morphia for the cure of the opium smoking habit close their hospitals than to see them continue in this evil way. The
morphia habit promises to become an evil ten times worse than the opium smoking habit has ever been. Remember I am not now condemning the use of morphia in the cure of the morphia habit. What would we at home think of a church worker using whiskey, or pure alcohol, to cure one addicted to simple claret?

Even at home many suddenly withdraw all morphia when treating morphia patients, absorbing much more of the drug than the worst of our patients. Then, why should we endanger the individual, the church, and the nation by using morphia in the treatment of those who can be compared to light morphinists? This method, I repeat, is unnecessary, dangerous, and pernicious.

II. The gradual withdrawal of the drug.—Much more can be said in favor of this method, for in using it we do not introduce to the notice of the patient a more dangerous and pernicious drug. But even this method is not necessary, or, it seems to me, advisable except in extreme and exceptional cases. I will not go into details. The different methods used are practically the same and the treatment of the symptoms we can leave until we get to the third method of treatment.

III. Sudden withdrawal of all narcotics.—This is the last and in my opinion the only method we have a right to use in the treatment of opium smokers, except in the very few cases of extreme age, or extreme debility, when diminishing doses of opium can be given.

Before discussing this method I want once more to call your attention to the fact that, excluding occasional opiomaniacs, the users of opium by the pipe are, comparatively speaking, light morphinists. I do not believe that the sudden cutting off of opium smoking is ever, except in extremely debilitated, or greatly diseased cases, dangerous or excessively cruel. In all my work among opium smokers, extending over twenty-one years, I have seen dangerous symptoms in but two cases which came to me for cure. One was an old man of over seventy. In his case I did not cut off the drug at once, but reduced the amount very suddenly, with the result that the patient was threatened with heart failure. I thereupon dismissed him, feeling he was not a suitable case for treatment. Another case was that of a foreigner suffering from phthisis and syphilis. He was an opium eater. Sudden withdrawal in his case caused death.
When suddenly withdrawing the opium the acute symptoms, restlessness, fidgets, muscular twitches, and the occasional cramps, vomiting, diarrhoea, anorexia, palpitations, insomnia, etc., last from two to five days. Sometimes these symptoms are so severe that the patient groans with distress. But this is not often the case if a little stamina is put into them by giving them "a talking to." Very often the symptoms are quite bearable. After five days all the distress rapidly diminishes. After ten days the patients begin to gain flesh, and at the end of three weeks they look very well, indeed, and the craving is absolutely gone.

Where possible there should be three wards for the treatment of these patients. In one the greatest sufferers should be put, those needing restraint. These should be locked up for from two to five days. After this they can be transferred to the second ward with those suffering less and not needing restraint. They should, however be carefully watched and not allowed to go where they cannot be watched. After ten days they can be transferred to the third ward, where but little watching is necessary, though they should not be allowed to leave the hospital compound until fully three weeks, or more are past.

When admitted, all the patients should be given a hot bath. Everything about them should be searched for concealed opium. All should be given the following mixture:—

R Chloral hydrat. ... ... ... ... ... ... gr.x.
Pot. brom. ... ... ... ... ... ... x.
Syr. aurant. ... ... ... ... ... ... f.dr. i.
Aquae q. s. ad, ... ... ... ... ... ... f.oz.

M. S.—One dose to be given as often as the patient formerly took opium. Continue this for three days.

The chloral should never be greatly increased, but the bromide may be increased according to the necessity of the case; it being remembered that it is a heart depressant. I believe that some of the cases of threatened heart failure are the result of too large doses of the bromides. Hence when giving over 20 grs. a combination of the three bromides (sod., pot., ammon.) should be given. The object we wish to attain is the quieting of the fidgets and the restlessness as much as possible, at the same time making sleep a possibility.

It is well to give an active cathartic, preferably a saline, at the beginning of the treatment. I dislike the strong pills containing colocynth for the Chinese, as those in this region, at least, are often very easily and distressingly affected by this drug. Of course where constipation has been the rule, especially where it has been severe, stronger remedies must be given. Free catharsis, at the beginning of
the treatment, is absolutely essential in order to throw off the accumu-
lated toxins just as soon as possible. But in the majority of cases free
catharsis is obtained without any medication during the second or third
day of the treatment. This, unless alarming, should never be stopped
before the end of the first week. It is nature's way of eliminating
the toxins. If catharsis does not come, give salines, or in extreme
cases any other active cathartic.

The restlessness and fidgets can also be relieved by hot bath fre-
quently repeated. They must be very hot, causing free diaphoresis.

During the third day vomiting is the rule. At first, unless exces-
sive, it need not be stopped. It may do good, relieving the system
of some of its poisons. When necessary to interfere, the following
powder will generally stop it:

<table>
<thead>
<tr>
<th>Rx</th>
<th>Bismuth subnit.</th>
<th>...</th>
<th>...</th>
<th>...</th>
<th>...</th>
<th>gr. x-xx.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sod. bicarb.</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>gr. v-x.</td>
</tr>
<tr>
<td></td>
<td>Rad. rhei pulv.</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>gr. ii.</td>
</tr>
<tr>
<td></td>
<td>Rad. zingeberis pulv.</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>gr. iv.</td>
<td></td>
</tr>
</tbody>
</table>

M.S.—One dose repeated as often as necessary.

This will also relieve the pyrosis, and if some powdered vegetable
astringent is added, it will relieve excessive diarrhœa. Belladona or
hyoscyamus are beneficial where the muscular twitches or the
creams are severe. Being a normal antagonist to opium, it can also
be given in cases where the drug has been taken in amounts above
3 drs. per diem, or where the bromide mixture fails to act. Some
give cannabis indica, but as this drug is often used as a habit, I would
eschew it.

Quite frequently the patients suffer from palpitations. Where the
bromides do not relieve it caf. cit. or a strong decoction of coffee will
do so. Digitalis might be given, but this is not so pleasant in its
effects as is the former drug. For threatened heart failure, strychnia
should be given. Personally, except in the cases already mentioned,
I have never met with it.

Dyspnea one occasionally meets with. This is, I believe, in
the majority of cases purely psychic, caused by a "letting go" on
the part of the patient. Suggestion comes in here. Occasionally a
laughing remark is sufficient to relieve it. An excessive display of
sympathy at this time does harm. A firm attitude on the part of the
physician is necessary. He must retain moral and psychic control of
his patient.

For insomnia the various hypnotics can be given. Trional I find
the best. Some like veronal, but this seems often to be a dangerous
drug. It is well to remember, too, that there is a danger of contracting the trional habit. One of the author's patients was given trional by a Japanese physician for the cure of the opium smoking habit. He nearly died from it. Acute inflammation of the kidney with casts and haematoporphyrinuria resulted.

Suggestion is one of the most valuable means we have at our command in the treatment of the opium smoker. We who believe in divine help look to God for aid both for ourselves and our patients. But, I believe, that to a non-Christian before he understands the religion of Jesus, prayer acts through hypnotic suggestion.

Most of the distressing symptoms cease in from three to five days. Insomnia may last a little longer. Just as soon as these first symptoms are over, begin to treat the cause and tone up your patient. But it is not necessary for me to go into this. This paper is already too long.

The above describes my method of treatment. I keep my patients in the hospital for twenty-one days. If the condition of those coming for treatment is any criterion, I believe my method is a fairly good one, for they almost always return to their home looking so well that "even their mothers would scarcely recognize them."

Besides the drugs mentioned above, others give for the cure of the habit and for the relief of the symptoms following the sudden withdrawal the following: coto bark, sod. phosphate, gold and soda, camphor, camphor monobromate, valerian, asafetida, zinc ox., aspirin, salicin, cer. oxalate, santonin, combretum sundiacum, cactine, pilocarp, hydrochl. or strophanthus, etc., etc.

I have given you my treatment, but I will in the future try on a few cases a modification of Town's treatment, for in an article by Lambert in the J. A. M. A., September 25, 1909, it is stated that by this treatment morphia, cocain, and alcohol can be cured in "less than five days with a minimum of discomfort and suffering to the patient." If after trial this statement proves true, I am quite willing to give up the treatment I have now used for twenty-one years with success. If I understand the somewhat vague description of this method given in the J. A. M. A., morphia is given to the users of morphia from one to five times (one exceptional case had it seventeen times) during the treatment. But in our opium smokers, I do not believe this is necessary. The modification which I will try is as follows:—

The specific in this treatment is the old 15 per cent. tincture of belladonna and the fluid extract of xanthoxylum and the fluid extract of hyoscyamus mixed in the following proportions:—
Treatment of the Opium Habit.

Tr. belladonnae .................................................... 3 drs.
Ext. xanthoxyli fl. .......................................... 1 oz.
Ext. hyoscyami fl. aa .......................................... 1 oz.

Before beginning the treatment give a cathartic (Lambert recommends the compound cathartic pills of the pharmacopeia.) I prefer a saline for the reasons already given. It is also wise to give an enema of soapsuds to clean out the rectum and the sigmoid thoroughly. When these pills (or the saline) have begun to act, begin with the specific, 6 to 8 minims, and give it every hour throughout the treatment, or until some signs of belladonna intoxication are observed. Every six hours increase the specific 2 minims until fourteen of sixteen are being taken every hour. Do not increase above 16 minims. If signs of belladonna intoxication are noticed, such as dilated pupils, dryness of the throat, red rash, or rapidity or incisiveness of speech, or sometimes a beginning delirium, stop the specific. When these belladonna symptoms have subsided, begin the specific again in 8-minim doses. Some patients are very susceptible to belladonna, and one may have to begin with 4, 5, or 6 minims.

After the patients have been under treatment for thirty hours, one should begin to give some cardiac stimulant, such as strychnia, \(\frac{1}{3}\) to \(\frac{1}{6}\) grain every three hours, or digitalis, or strophanthus; either one of these separately or in combination. These tend to overcome the relaxation of the vascular system, which in these patients often produces a feeling of exhaustion.

Now, finally, what is the prognosis? Will our patients when once free remain free? It should be remembered that one who has experienced the relief opium can give in all physical and mental distress is more likely to take up the pipe than one who has never had the habit. Hence after curing your patient of the craving, do all in your power:

I. To cure the moral, or psychic, or physical disability or pain, for the relief of which the habit was contracted.

II. Do all in your power to make it impossible for your patient to obtain the drug.

III. Give to your patient that which will help him in the hour of temptation:
(a) A fear of public disapproval, creating as far as you are able, such a public disapproval; (b) Give your patient a higher purpose in life; (c) Above and beyond all bring to him the knowledge of the love of Christ. Unless this element enters into the life of our patients, I know from long experience, and as a result of a careful sifting of the testimony of others, that fully seventy-five per cent. of opium smokers cured in our hospitals return to the habit or contract one infinitely worse,
ADDENDA.

After this paper was written I received two more reports. One was from a physician who treats eight cases a year and uses the sudden withdrawal method.

The second was from "a consulting physician to the benevolent institution for opium habitués," where "about one thousand" are treated a year. "This opium refuge, I understand, is under Chinese control, and in it they" use gradual reduction, lasting two or three weeks; "sometimes four weeks." The patients are mostly soldiers.

These reports modify the statistics already given, as follows:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>Average per Year</th>
<th>Total per Year</th>
<th>No. of Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Gradual withdrawal of narcotics</td>
<td>63</td>
<td>2,646</td>
<td>42</td>
</tr>
<tr>
<td>B. Sudden withdrawal of narcotics</td>
<td>54</td>
<td>1,510</td>
<td>28</td>
</tr>
</tbody>
</table>

There is then considerable increase in favor of the average number per year treated by the gradual withdrawal method. But this increase is due to the fact that an opium refuge under Chinese control with only a foreign physician as consultant is included.

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A STUDY OF ASCITES AND SPLENOMEGALY.*

By HENRY S. HOUGHTON, M.D., Wuhu,

That the reiteration of important principles is as a rule helpful to every one, is the only apology for the presenting of a paper like this, in which a field familiar to all is threshed over again and very little added to its boundaries. The subject is a very wide one; it is purposely elastic, and is intended to cover a discussion of cases that are daily met with in hospital and dispensary practice and those for which one must be constantly on the lookout. Specifically I wish to give an analysis of fifty consecutive cases coming under the title of this paper, which have presented themselves for treatment at the Wuhu hospital in a period of eight months; in so doing it is desired to pointed out (1) what are locally the most frequent causes of the conditions mentioned, (2) the most simple means of clarifying the differential diagnosis, and (3) the difficulties met with.

In an earlier number of the CHINA MEDICAL JOURNAL Roys has discussed splenomegaly with particular reference to a large series seen in Shantung. His analyses are very different from those given

* Triennial Meeting paper, Hankow, 1910.
in this paper and are exceedingly valuable for comparison, as showing how inevitably circumscribed one's deductions as to general conditions must be.

In the rush of heavy clinics that most of us face, there is a great temptation to make unwarranted assumptions in diagnosis. It is an easy thing, for instance, in the case of a patient presenting an apparently unequivocal history of precedent malaria, an enlarged spleen with more or less ascites, apparent anemia and weakness, to jump to the conclusion that one is dealing with a grave post-malarial cachexia; the sequence of the history and the condition of the patient are plausible, treatment of a more or less satisfactory nature is at hand, and much time is saved. Of this error of hasty judgment all of us have doubtless been guilty at one time or another. How easily this sort of diagnosis may be fallacious it is the purpose of the following notes to show. The case here cited is not an hypothetical, but an actual one, in which the diagnosis finally reached was not malaria. We are confronted in the Orient, moreover, not alone by diseases with which we are more or less familiar in our home lands and from student days, but as well by a varying set of maladies, restricted and peculiar, which are new and in many ways confusing, especially to the novice. In our practice the greatest effort should be made to make clear and accurate diagnosis for the sake of our professional self-respect, for the furtherance of proper treatment, for prognosis which will be worth something, and for the sake of such students as may be looking to us for scientific medical training.

Leaving aside the ordinarily accepted classification of conditions coming under my title, your attention is directed to the consideration of ascites or anasarca in the following:

1. Dropsy in the course of cardiac or renal disease.
2. Secondary to intra-abdominal tumors.
3. Arising from pathological blood conditions, anemia, leukemia, etc.
4. Occurring in the course of acute disease, in beriberi, etc.
5. Portal Obstruction: (a) Toxic cirrhosis; (b) Protozoal infections; (c) Metazoal infections.

Concurrent splenic and hepatic enlargement is of course involved in many of the foregoing, but there is one hepatic involvement of great importance—abscess of the liver (amoebic).

It is the last division of the list given, the portal obstructive cases, that are to be discussed in detail; the other conditions are here referred to in the measure in which they are to be seen in average hospital practice in central China, and in which they are to be kept in mind.
1. Dropsy in the course of cardiac and renal disease.—Organic heart lesions, the sequel of acute rheumatic fever, are rare here. I have seen but one case in Chinese of failure of compensation in an organic valvular insufficiency. In the past three years not more than two cases of undoubted acute rheumatic fever have been observed in natives. The subacute and chronic arthritides are of course exceedingly common, but the articulocardiac cycle is sparsely seen as compared with Occidental countries. The possibility of beriberi must be kept in mind in dealing with all cardiac cases.

Dropsy as complication of renal disease is a more familiar picture in China. Nephritis presents as a rule no great difficulty in diagnosis, but the necessity of careful chemical and microscopical examination of the urine must be insisted upon, in order to eliminate simulating states.

2. Secondary to tumors.—Of ascites arising from intra-abdominal tumors, other than those specifically discussed, little need be said in this connection. Massive tumors of the ovary and similar growths are not infrequent, but little difficulty is met with in diagnosis usually. The influence of parasites as a contributing and removable cause of anemia in these cases, especially operative ones, must be remembered.

3. Diseases of the blood and blood-forming organs, in which there is splenomegaly with or without ascites or anasarca.—Under this heading come progressive pernicious anemia, splenic leukemia, primitive splenomegaly and similar obscure blood maladies. The anemias secondary to various parasitic infections are discussed elsewhere. What is the distribution of the diseases of the blood in China, and to what extent are the Chinese liable to them? I have not been able to find the record of any investigations made in China on this point, though it is stated that in the Philippines cases of splenomegaly showing the characters of Banti's disease are not infrequent (Woolley, P. Journal of Sci., June, 1906). Nor have any of these conditions been seen during the time of investigation covered by this paper, though the blood of all cases entering the medical side has been examined. Two fatal cases of ankylostomiasis have been observed, however, in which the blood picture was that of progressive pernicious anemia.

4. Dropsy or hepatic and splenic tumor in the course of acute disease.—Those diseases with which we are particularly concerned are:

(a) Beriberi.—Little is known apparently of the abundance or rarity of this malady in the Yangtse Valley. Our experience with it at Wuhu is slight; in the past year one case only has entered with the picture of dropsical beriberi. There is a great abundance of certain nervous complaints, particularly paraplegia, which may represent the
residence of beriberic cases which are infrequently seen in the acute or in dropsical stages. I confess to a great deal of doubt as to these cases; they do not follow the text-book descriptions, and one with slight experience finds great difficulty in classifying them. It is said that in certain districts care must be exercised in differentiating the neuritis of malaria, which is apparently an entity, and acute beriberi of the dry type. This confusion is not likely to confront one in central, nor probably in northern, China. The main distinctions are the greater frequency of oedema in connection with neuritic symptoms in beriberi and the presence of heart murmurs. (Fink, Journal Trop-ical Med. and Hygiene, January 10.)

(b) Amoebic abscess of the liver.—This catastrophe, to which natives are apparently much less prone than alien races, is often obscure, and must be carefully excluded in dealing with hepatic, or combined hepatic and splenic hypertrophy. In the interests of differentiation the following should be kept in mind:

Liver abscess may occur where persistent search fails to give evidence of a previous dysentery and where there is no history of antecedent dysentery or diarrhoea (Musgrave, Philippine Journal Science, June; 1906).

Polymorphonuclear leucocytosis, a remittent fever, chiefly rising in the evening and resistant to quinine, and more or less obscure abdominal symptoms, are a triad of great importance in the diagnosis of hepatic abscess.

(e) Finally one anomalous case appears in the notes prepared for this paper, which is put here as being an acute febrile disease; no conclusion is deduced. There were two cases of this sort seen altogether; the second being in the out-patient service and refusing to enter the hospital. (Case No. 208.) Unfortunately no bacteriological study could be made of this case. It suggests in some ways an acute process involving the pancreas.

Case No. 208.—Name, Liu; age, 11; sex, m.; complaint, swelling of the abdomen and extremities.

History.—The parents say that the child has been perfectly well until the present illness began. They live in Wuliu.

Present Illness.—Last year in the sixth month (8 months ago) the child first complained of pain in the abdomen, and was troubled with indigestion and water-brash. Fever began at the same time, and shortly afterward abdominal swelling appeared. This year the oedema and enlargement have been more noticeable and the legs and genitals have become oedematous. Patient has never had bloody stools, but has had a diarrhoea for the past twenty days. The genitals were the last to swell. Fever has been constant. There has been much apathy and anorexia, but no other symptoms of moment. The urine and urination are normal.

Status Præsens.—April 26th, 1909. A much emaciated child. Mucus membranes slightly pale. Skin pasty. Eyelids oedematous; ectropion of the right eye. Expression weary and listless. Circulatory.—Pulse 100, tension rather high, regular, small. Heart.—Apex beat in the 4th l. i. s. in the nipple line. There is no evident enlargement. Sounds clear, the second ringing. Respiratory.—

Blood.—W. b. c., 4,000; Hb, 90\%; Fresh Blood.—r. b. c. normal. No parasites. The leucocytes show bluish refractile fat-like droplets in many; sometimes four or more in one cell.

Differential Count.—Polymorphonuclear Neutrophiles ... 77.4\% 77.1\% 
Lymphocytes ... ... ... 17.2 14.7
Large Mononuclears ... ... ... 5.4 7.8
Basophiles ... ... ... ... ... ... 4

Urine.—Deep yellow, clear, Sp. G. 1022, faintly acid, nubecula, no albumen, no sugar. Microscopically, a few crystals of calcium oxalate only.

April 29, 1909.—Practically as above.

Stools.—April 25, 1909.—Loose, pale yellow, much undigested vegetable material. Odor very sour, not foul. No blood, nor mucus. Microscopically, after sedimentation, an unusual amount of fat. No ova, nor blood.

April 26, 1909.—As above. Microscopically much fat; no blood nor ova. Sedimented.

April 27, 1909.—Loose, chocolate color, very foul. Sedimented. Microscopically negative.

April 30, 1909.—Small, liquid, consisting of colorless mucus, in which float small brownish flecks of fecal matter; foul. No blood. Microscopically negative.


No. 208. Admitted April 25, 1909.

5. Portal Obstruction. (a). Toxic cirrhosis.—Cirrhotic livers are not uncommon in Mid-China. During the past year four cases have entered the hospital, which from history and physical findings have been diagnosed as contracted liver. An abstract of one of the four cases, which was perhaps of more than usual interest, is as follows:

CASE 266.—Name, Chang; age, 36; sex, m.; occupation, ricksha coolie; complaint, swelling of abdomen.

History.—Patient came two years ago to Wuhu from Shantong (T'eng-cheo-fu). He had been a soldier there for many years; for the past two years has been a ricksha man. Has smoked opium for two years. He says that he was never ill before in his life.

Present Illness.—Shortly after coming to Wuhu, he had an attack of an irregular low fever, which he says was malaria, lasting three months or more. After the fever disappeared, his abdomen and legs began to swell; he never
noticed that there were any masses in his abdomen. During this sickness and before, he had had no cough, nor hemoptysis, no digestive disturbances, diarrhea, dysentery, nor blood in the stools; no urinary disturbance, nor genito-urinary disease. Patient has had jaundice for the past four or five years; does not know to what to attribute it. Since the ascites has come, his appetite has been poor; digestion is bad; there is a sense of suffocating fullness after eating, and much flatulence. Bowels are regular; sleeps well. Has lost weight and complains of weakness. Says he has no fever.

**Status pæres.**—Patient has a worried expression. Color pasty; sclera definitely yellow. Mucous membranes good color. Tongue clean, moist, tremulous, rather pale. Pupils equal, react to light and accommodation. There is no apparent palsy. Circulatory.—*Heart.* Apex beat in 5th l. i. s., inside the nipple line. Sounds clear. *Pulse* 72, regular, good volume, moderate tension, no obvious thickening of the arterial walls. Respiratory.—Soft rales over the lower right front. Otherwise clear. Abdomen.—Symmetrically enlarged. Some enlargement and tortuosity of the superficial veins. No masses visible nor palpable. Genitals.—Uninvolved. Extremities.—Legs edematous throughout. Reflexes.—Slightly exaggerated on the right. Left normal. [Note, 7th May, 1909.—Much edema of the trunk, genitals and legs; rather soft. No edema above abdomen. No numbness anywhere; no hyperaesthesia. Kneé-jerks slightly exaggerated. Tongue clean; mucous membranes high color. *Heart.*—Apex beat in 4th l. i. s. inside nipple line. No marked impulse; slight pulsation in the vessels of the neck. On percussion nothing of import is to be made out. On auscultation the sounds are loud and clear; rhythm normal; no bruit. Pulse 76, good volume, regular, moderate tension. The skin is negative; glands are negative. On tapping, a large amount of clear fluid was withdrawn, and it was found on palpation that neither liver border nor spleen could be reached. The liver appeared to be definitely decreased in size.]


**Feces.**—Routine examination proved negative. Violent purgation brought nothing but a few ova of *Trichocephalus dispar.*

**Blood.**—w. b. c., 5,400; Hb, 80 %; Fresh Blood, negative

**Differential.**—Polymorphonuclear Neutrophiles ... ... 71.7 %

Lymphocytes ... ... ... ... ... ... 23.7

Eosinophiles ... ... ... ... ... ... 2.3

Mononuclears ... ... ... ... ... ... 2.0

Basophiles ... ... ... ... ... ... .9

**Autopsy, July 1st, 1909.**—Four hours after death. The body is that of a large well-developed man. The abdomen is much distended with fluid and the lower extremities very edematous. Rigor has not developed. There are extensive petechiae and subcutaneous hemorrhages over the front chest and arms. There is a well-marked layer of subcutaneous fat. On opening the peritoneal cavity a large quantity of amber clear fluid escapes. The peritoneal surface is smooth, but shows scattered petechiae throughout. The omentum is slightly thickened; visceral peritoneum normal. *Liver.*—The liver is about one-third the normal size, hard and nodular. The color is a mottled purplish, with reddish grey depressed areas over the whole surface, measuring about an eighth of an inch in diameter. On section it resists the knife; the cut surface is uneven and gritty, showing islands of soft red tissue lying in a firm greyish resistant matrix. Gallbladder.—The organ is normal in size; on opening, a small quantity of yellow viscid bile escapes. The ducts are normal. *Spleen.*—Apparentely normal in size, consistency and color. *Pancreas.*—Normal. *Kidneys.*—Somewhat enlarged. No further examination made. *Intestines.*—Not opened.

**Microscopic.**—Smears from the spleen show only normal pulp. Scrapings from the gall-bladder are negative. *Liver.*—The capsule is greatly thickened, and between the lobules there is extensive recent proliferation of connective tissue.
There is great destruction of liver substance. In the connective tissue strands are numerous areas of small celled infiltration. The parenchyma cells, especially those in the lobules least attacked, are loaded with very dark pigment. The pigment is distributed mainly about the centre of the cells. The endothelial cells of the capillary walls are free. There is much formation of new gall-ducts throughout the connective tissue bands.

Anatomical Diagnosis.—Chronic interstitial hepatitis, atrophic type.

The main etiologic factor here is not apparent. Syphilis and malaria are excluded, I think, by the anatomical findings. The commonest cause of this hob-nailed liver is supposed to be indulgence in alcohol; perhaps not in great excess, but taken constantly over a long period of time in quantities too large to be readily oxidised by the body. This sort of daily consumption of spirits is very common in central and northern China, and probably throughout the empire. Excessive drinking is perhaps confined to official feasts and banquets of the wealthy, but daily drinking is almost universal. The liquor is inexpensive; farmers make their own supply, and everybody has it at meal time, save perhaps the exceedingly poor. I am inclined to think that our four cases of atrophic cirrhosis may be laid to alcohol as the principal cause. One of the cases volunteered that he had been accustomed to spirits for twenty years, and thought he took habitually more than was good for him.

(b). Protozoal infections. Malaria.—The picture of malaria cachexia varies somewhat with differing localities. The cases in the Yangtse Valley, which are most commonly seen, show a spleen of moderate enlargement—two or three fingers breadths below the costal margin—some splenic tenderness, little or no hepatic swelling, no ascites, more or less satisfactory response to treatment by iron, arsenic and local applications, and a relative mononuclear leucocytosis. Sometimes organisms are found in the peripheral circulation, and furnish a convenient handle for therapy. Chronic malaria, having borne for years the evil reputation of conditions wholly foreign to it, is not even yet sufficiently purged from them to stand out a perfect clearcut entity. One should be very slow in making a diagnosis of this condition even in this malarious country, unless clearly suggested by the blood picture and history and strengthened by the efficacy of appropriate treatment.

Kala Azar.—This has an undoubted wide distribution in China. Presumably the large number of cases of enlarged spleen reported by Roys
from Shantung come in this or a nearly allied category. It has not been seen in Wuhu during the period of the compilation of the series here reported, though all suggestive cases have been punctured. Through the courtesy of Dr. Lambert, I have been able to see a case in Kiukiang, and beautiful preparations of liver pulp crowded with the parasite. (This is, however, an imported case.) Similar cases, clinically, have occurred further down the Yangtse. It is important that the whole field of Kala Azar in China should be mapped out. It should not be forgotten that in Kala Azar there is often a terminal cirrhotic liver with ascites. Rogers (Fever in the Tropics) says: "In very chronic cases an actual cirrhosis of the liver may occur. The surface of the organ is smooth, and microscopically there is a very diffuse intra-cellular cirrhosis of uniform distribution. . . . This form of cirrhosis of the liver is much commoner. . . . than a true malarial cirrhosis, with which it has hitherto been confused. It is, however, much less common than atrophic cirrhosis due to unknown causes."

There is described, moreover, a febrile tropical splenomegaly of a similar sort clinically, in which the Leishman body is not to be demonstrated. Woolley (Philippine Journal Sciences, June, 1906) defines tropical splenomegaly as a disease "characterised by a splenic hypertrophy, emaciation, an irregular temperature uninfluenced by quinine and certain gastro-intestinal disturbances, such as diarrhea or dysentery." He goes on to say that in those cases in India and other oriental countries wherein the Leishman bodies are constantly present with these manifestations, there is a consensus of opinion in considering these bodies to be the causative parasites of Kala Azar. Woolley has, however, made a study of tropical febrile splenomegaly as met with in the Philippines; seven cases characterised by splenomegaly, rheumatic pains, oedema or ascites, diarrhea with or without hepatic enlargement, and remittent fever. All cases were negative for malaria; the average leucocyte count was 6,300. In five cases splenic puncture was negative; two showed bacteria in cultures from splenic blood. In two cases there was great increase in eosinophiles; for the rest the mononuclears were relatively increased. Fecal examinations showed only uncinaria and tricocephalus. His conclusion is that though a certain number of cases of tropical febrile splenomegaly may be due to the Leishman body, it will be necessary to search for further etiologic data before we can classify the whole group of cases which are characterised by the general gross features of Kala Azar. He believes that the clinical picture may be determined by pathological changes in the intestinal walls. More recently (Day and Ferguson, Annals of
A similar condition has been reported from Egypt, endemic there; the main features are splenic and hepatic enlargement, irregular fever, ultimate atrophic cirrhosis and death from hepatic insufficiency.

These are important contributions and will be referred to again.

(c). Metazoal infections.—It is here that most of our cases of grave drops, of urgent ascites, with hepatic and splenic enlargement and anemia, are to be grouped. In southern Anhui this picture is a common one and in certain districts of economic importance. The parasite most frequently responsible is in our experience Schistosomum japonicum; the next most important offender is Ankylostomum.

Schistosomum was first described in 1904 by Katsurada from an endemic area in Japan; to date it has been reported, outside of Japan, from Singapore (Fukien), the Philippine Islands, and in China from the provinces of Hunan, Honan, Hupeh, Kiangsi and Anhui, practically the whole central basin of the Yangtse Valley. It is by the recent report of the Research Committee made so evident that the distribution of this trematode is more than of purely local interest, that a digression to describe the clinical forms which this infection may take, will perhaps be pardoned. It is an exceedingly important, and not always easy, condition to recognize. The following brief classification of cases is submitted:

(a). Typical cases, with large liver, spleen, fluid in the peritoneal cavity and blood and ova in the stools.—These are classed as 'typical' because the recognition of them is easy and because this is usually the final picture in severe infections. In numbers they do not preponderate; of our series of forty cases, only sixteen showed the gross features—swelling of liver or spleen, or hydroperitoneum.

(b). Cases showing only splenic enlargement, with or without blood or ova in the stools.—These are the ones which give a great deal of difficulty in diagnosis; they must be separated from malarial cachexia, from Kala Azar, and from the group of cases described by Woolley from the Philippines and those from Egypt. There are periods of some length in which the ova do not appear in the feces, or are so sparse that they may readily be overlooked in routine examination. In the absence of positive findings in the feces, the blood picture in dubious cases is very suggestive; the finding of ova in the movements is, unfortunately, the only proof positive aside from necropsy that I know of, and cases wherein their presence cannot be demonstrated, can only be classed as presumptive, though there are accessory signs which are helpful.

(c). Cases negative except for marked eosinophilia.—A number have entered for illnesses of various kinds, in which the physical findings were negative and the condition discovered accidentally in routine examination of the blood or stools. That a concurrent infection with the parasite is an important factor in these cases, especially surgical ones, is not to be doubted. The relative great increase of the eosinophile cells is at the expense of the polynuclear neutrophiles, theoretically diminishing, therefore, the defense of the body against bacterial invasion; as a matter of fact such cases invariably do very badly under surgical procedures.
Latent cases, showing ova in the feces, but no bodily reaction.—Only two cases in our series were free from signs of specific reaction to the worms.

Distribution.—Infections have been seen from nearly all parts of southern Anhui; the limits being on the east Ningkuchfu, on the north Luchefu, west Sohsenghsien, and in the south Fauch'anghsien. There are certain localities, however, where it is very abundant: every patient, for instance, that has come to us from Sohseng, for whatever malady, has been found infected, and they all say that in the country about that place one in every three or four has ascites and dysentery. There are several foci in the province where the distressing results of grave infections are common and well-known among the country people. Death in three or four years is a not unusual outcome.

It is evident, from the cases abstracted above, that there are not only cases in which the situation is not particularly grave, but ones as well in which there is no reaction evident. It is difficult, in the absence of autopsies, to say with exactness upon what this difference depends, whether upon actual numbers of parasites harbored, or upon the difference in site or migration of the parent worms or ova. Personally I am inclined to believe that the ominous symptoms of portal obstruction are due to the plugging of important vessels either by living worms or ova, or by dead worms. Cases have been seen furnishing a clear history of infection covering more than twenty years, in which, within two or three months' tremendous ascites has developed.

The mode of infection is not clear. There are three possibilities: (1) the miracidium may enter a human host through either the intact or abraded skin and proceed to adult life, independent thus of an intermediate host, or (2) man may be infected by the ingestion of the free cercarial embryo, which is perhaps the usual course of infection in other flukes, or (3) infection may be produced by the ingestion of the intermediate host containing the cercaria encysted. Against the first theory it may be urged that though cats have a well-known aversion to wading, they are very liable to infection in endemic areas, and skin infection seems dubious; the low viability of the miracidium would also seem to argue an intermediate host. But the work done on these lines is insufficient to make discussion profitable.

Occupation, etc.—Infections are almost entirely confined to farmers and boatmen. It is occasionally seen in city people who years before have been on a farm, and one case in our series was a servant who had previously been a soldier and who had never farmed nor been
accustomed to water. Women, as far as our limited observations go, are not attacked, at least not in the same proportion as males. Children are not exempt; the earliest seen was fifteen years, but many cases give a history running back to earlier childhood.

The most important considerations clinically are in the anamnesis:

1. Residence in endemic area;
2. Occupation—farmers, boatmen, raftsmen;
3. A history of recurrent dysenteric seizures;

and in the findings:

1. The presence of ova in the stools, the proof positive, but not always easy to demonstrate.
2. A high grade of eosinophilia is exceedingly suggestive. In all cases here showing an eosinophilia of over 10 per cent, the ova of Schistosomum japonicum have been found sooner or later. The diagnosis has been made a number of times from the blood picture alone in the absence of history or physical findings and has in every case been confirmed after a more or less extended search through the feces. There is no absolute increase in the white cells; the average leucocyte count is 6,300.
3. The exaggeration of the knee-jerks, appearing often in conjunction with eosinophilia in the absence of other signs or symptoms, is an important sign, and represents, I believe, the reaction to some toxin which is either elaborated by the parasite (Fearusides, *Journal of Economic Biology*, Vol. I), or absorbed from the damaged intestinal mucosa.
4. Emaciation not traceable to other conditions occasionally appears.
5. Fever is present in all cases except those entirely latent—a low intermittent, rising usually toward night.
6. Anemia is not a feature of the infection. The average hemoglobin index in our series is over 80 per cent. Any case showing marked anemia should be examined for some other condition which will account for the blood destruction.

*Ankylostomum.*—In the series presented, eleven of the fifty are infections with uncinaria. Cases of uncinariasis are probably a familiar sight all over China and are easy of diagnosis and treatment after fecal examination. Important points to be noted clinically are:

Preponderance in agriculturalists.
A history of huang-lao-ping, perhaps, or some native term for uncinariasis, but no history of dysenteric attacks.
Usually a great abundance of ova in the stools.
Lack of emaciation—full, puffy faces.
Relatively a low grade of eosinophilia, but marked anemia and hydremia.

*Strongyloides intestinalis.*—One case in the series showed a double infection with this nematode and with *Ankylostomum*.

*General.*—Fifty consecutive cases, representing perhaps the most usual causes of ascites with and without splenic and hepatic swelling, in the Mid-Yangtse Valley, are:
A Study of Ascites and Splenomegaly.

The clinical procedures upon which the most emphasis is to be laid, and which are of the most service in differentiating these various conditions, are thorough routine blood examinations and routine fecal examinations. These should be done, if possible, in all cases, and certainly in every case presenting obscure or suggestive abdominal symptoms or apparent anemia. By laying stress on these purely laboratory manoeuvres, it is not intended to decry bedside observation, nor the time spent in the peculiarly burdensome task of drawing out an intelligible history of disease. One who would fly to the laboratory for the largest part of his information is committing as great an absurdity as he who looks upon all microscopic work as unnecessary. A laboratory check upon diagnosis, especially important as it is in the Orient, is omitted usually because of lack of time, but no time is wasted which leads to a more helpful understanding of our cases, and for the most important clinical information little time need be taken.

With convenient stains in tablet form, native assistants can be trained to make creditable blood preparations in a few minutes. I have found that the best and briefest way to make a differential count is to dictate to an assistant, requiring him to put down in blocks of five the initial letters representing the names of cells, thus:

(Emery, "Clinical Bacteriology")

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>3</td>
</tr>
<tr>
<td>P</td>
<td>2</td>
</tr>
<tr>
<td>L</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>1</td>
</tr>
</tbody>
</table>

or where one must do the work alone it has been found more convenient to use arbitrary symbols and record them by fives; by keeping one eye on the field and one on the paper the recording can be done as fast as the leucocytes are counted without losing the place;

\[
\begin{align*}
III—O \\
VII—A
\end{align*}
\]

Wherein, for instance '1' will represent a polynuclear neutrophile, 'O' an eosinophile, and so on.

A full count of five hundred cells can be completed in this way in about thirty minutes. In the matter of fecal examinations but one suggestion is offered. There are certain helminths the ova of which...
are sometimes sparsely found in the movements; it may be a matter of moment to give the stools an unusually close search. For this purpose the method of washing suggested by Stiles (Bulletin No. 17, U. S. Department Public Health) or a modification of it, is excellent. In our work such stools, which are sent to the laboratory in covered Petri dishes, are rubbed and washed through fine meshed brass gauze into a conical glass and left in plenty of water for twenty or thirty minutes to sediment. After decanting the excess of water, a fine pointed pipette picks up the lowest layer of the sediment, and if ova are present, they are almost sure to be found. Large amounts of feces are unnecessary for this procedure. The use of the centrifuge presents no advantage over this method.

CONCLUSION.

1. The causes of the majority of cases of ascites with or without splenic tumor are, in central China, in the order of their importance:
   - Metazoal parasites.
   - Protozoal parasites.
   - Toxic cirrhosis of the liver.

2. Much wider and more careful laboratory studies are needed to enlarge our field of information on all of these conditions.

ASCITES ASSOCIATED WITH SPLENOMEGALY.

Dr. Hume has asked me to add a few words to the discussion on this subject. As it is one that has long been of great interest to me, I shall accept his offer. In one direction too I have perhaps had more experience than many in the operative treatment of these cases, so I trust that these few remarks may be not without interest.

We meet with this disease very commonly in South Formosa. As I write we have no fewer than four women and seven men in the Tainan hospital with this complaint.

The symptom complex of these cases is:

1. An enlargement, often very considerable, to the spleen.
2. Ascites often considerable, sometimes enormous. One man at present in hospital requires paracentesis every ten days; on each occasion a very large amount of fluid being removed.
3. At first an enlargement with later a marked contraction of the liver.
4. Some but by no means all of the cases show a marked tendency to hemorrhage. Bleeding from the nose, purpura, etc.
5. All show a very marked anemia, often becoming truly cachectic in appearance.
Unfortunately my information stops here. We are at present in considerable confusion with rebuilding, etc., and I have been unable to do any systematic blood examination of these cases, so do not care to commit myself to a statement of the exact blood condition.

To clear the ground for discussion it is important to deal with associated conditions. In a country where malaria is ubiquitous it is certain that malarial parasites will from time to time be found in the blood of these patients. I am, however, satisfied that there is no direct association between the two diseases at least in the later stages of this form of splenomegaly. Another disease often associated with this complaint is Ankylostomiasis. I believe that the proportion of cases showing infection with this worm is, however, not higher than that of the population at large. The later stages of Ankylostomiasis, too, are associated with general anasarca not with mere ascites, and I am quite satisfied that there is no causal relation between the two diseases.

What then is the complaint with which we are dealing? It is possible that pressure from an enlarged spleen might cause thrombosis of the splenic tributary of the portal vein, the result of which would be cirrhosis of the liver. On the other hand splenomegaly is extraordinarily common here, and while the disease of which we speak is anything but rare, it is comparatively so when compared with simple splenomegaly. This proves then that mere enlargement of the spleen is not in itself a cause of the disease, and I think that this explanation must be considered extremely unlikely.

In all the cases, however, splenomegaly is the first symptom of the disease. It would seem probable therefore that some toxin is developed in the spleen which, being conveyed by the blood stream to the liver, there sets up a cirrhotic condition. It is to the condition of the liver that the ascites is due. Of this I have no doubt whatever. I have performed myself six laparotomies for this condition and know of two others having been done. In all the cases the liver was in a condition of cirrhosis. In early cases with enlargement and engorgement associated with some amount of fibrosis. In late cases I have seen a typical small fibrosed "hob nail" liver. Alcoholism can usually be excluded among the Chinese. I have taken special care to exclude it in several of these cases.

What then is the primary cause I must confess to be absolutely in the dark. We may call the disease Bante's disease, or splenic anaemia, or by any name we choose, but we have at present no light on its causation except the probability that it is in some way due to toxins generated in the spleen.
Treatment.—Medicinal treatment in the later stages of the complaint is absolutely useless. I have some faith in arsenic in the early stages, but whether well founded or not it is difficult to say. It is quite evident that if the theory of a spleen toxin is correct the proper treatment is excision of the spleen at as early a stage as possible. Against this we have the difficulty of diagnosis in the early stages, and we have further to remark that in cases apparently quite typical but in an early stage spontaneous cure, or as the result of the exhibition of drugs, seems to take place. And further a small proportion of these cases appear to be cured by a single paracentesis or at least may remain without further development of the disease for many months or even years.

With regard to symptomatic treatment in the later stages I shall not deal. But the important question remains, Is anything to be gained by operative treatment at this stage? Two courses are open to us.

First, excision of the spleen.—I have twice operated with the intention of removing the spleen. I must confess to having both times had to give up this plan. For one thing the patients are very bad subjects for a prolonged operation, for another my experience of splenotomy is nil, and the operation is a very severe one, where, as usually occurs in these cases, the spleen is adherent by large and very vascular adhesions to the diaphragm and surrounding parts. I have therefore contented myself in every case with separating the peritoneum widely from the abdominal wall and implanting the omentum in the pockets so made; the idea being to establish a fresh circulation, avoiding the compressed portal vein. I speak with great diffidence about the results of this operation. The operation is a slight one, and does not in itself endanger life. None of my patients have at any rate been any the worse for the operation. Most of the cases have been too recent for me to be willing to decide at all on the permanent results. Two cases were, however, operated on some years ago. One man appeared to be neither better or worse as the result of the operation, and died a few months later from progress of the disease. The other is still living. Has still a very slight amount of ascites, but otherwise is quite well and seems to have greatly benefited by the treatment. I am therefore trying it again in a series of cases at present.

Before closing these not very lucid remarks on a very difficult subject I should like to point out that the disease is not confined to South China and Formosa.

S. Lyle Cummins on the Differential Diagnosis of Kala Azar in the Anglo-Egyptian Sudan, Wellcome Research Laboratories, third report, page 104, writes as follows:—
I cannot leave the subject of differential diagnosis without a reference to "Egyptian cirrhosis of liver and spleen." This, like Kala Azar, is a chronic disease with splenomegaly and enlargement of the liver, ascites, edema of the lower limbs, pigmentation of the skin, resistance to quinine, and a tendency to a fatal termination. . . . Of all the blood-counts given, not one is like malaria. On the other hand none of the blood-counts at all resemble Kala Azar, and I am informed by Dr. Alec. Ferguson, who has examined very many pathological spleen at the Kaer-el-Ainey Hospital, that he has never yet seen the Leishman-Donovan body in spleens examined by him.

On the whole there seems good reason to consider this cirrhosis of liver and spleen as sui generis. . . . My own opinion, formed on admittedly incomplete evidence, is that Egyptian cirrhosis is a disease apart.

I may add that in South Formosa I have so far failed to find the Leishman-Donovan body in these cases.

JAMES L. MAXWELL.

THE CHOICE OF OPERATION FOR VESICAL CALCULUS IN CHINA.

By CHARLES KIRKLAND ROYS, M.D., Weihsien.

A large amount of work on vesical calculus is being done in China, but comparatively little is being written about it, at least in recent years. It seems fitting that this topic should be again brought forward; though the writer realizes that many others—especially the operators of Kwangtung or Anhwei—are far more competent than himself to deal with this subject. An experience of 40 operations in the last three years for stone in the bladder, together with a perusal of the scanty literature available at an interior station, are taken as the basis of the remarks which follow.

Many valuable articles on this topic have come from members of this Association. Dr. J. G. Kerr's notes on his own cases; Dr. Thomson's review of 1,200 of those cases; Dr. Swan's record of 114 cases with only 3 deaths, together with his article treating of the technique of operations for stone,—all help to make the files of the CHINA MEDICAL MISSIONARY JOURNAL most instructive reading. Another medical missionary, of whom we may well be proud, has made most valuable contributions to this subject. Dr. George E. Post, of Syria, has recently gone to his reward at the hands of the Great Physician he served so long and well. Three years ago he reviewed some 450 of his stone cases in an American journal* as a continuation of articles

* Figures refer to Bibliography at end.
written in 1877 and 1880. Frequent references to this review will later be made and some analysis of the cases will be attempted.

All who have had any contact with surgical literature in the last few years must have been impressed with the advance visible in the surgery of the prostate. Freyer has recently reported on 600 cases of total enucleation, and many others show long lists of operations with surprisingly small mortality-lists. Surely there are valuable lessons to be learned from all this widening circle of experience for those of us who are called upon to perform lithotomy, "one of the gravest operations in surgery." And it is probable that not yet has the last word been said about the best method of performing this operation and the principles which should govern a choice of procedure to suit a particular case.

Any discussion of the choice of an operation involves a consideration of diagnosis, and also of methods and technique. A complete elaboration of these subjects will not be attempted here; only such points being considered as seem to bear directly upon the question of choice.

DIAGNOSIS.

In addition to an appreciation of the condition of the kidneys and bladder, to be attained by methods familiar to all, four things must be known about the stone itself, viz., presence, size, number, and chemical composition.

1. To determine the presence of vesical stones, the X ray is apt to be disappointing. Stones of uric acid or urates do not cast a shadow sufficient for identification. Osgood mentions a stone weighing 42.2 grams seen by cystoscopy and afterwards removed, which showed no trace on the photographic plate. The results of cystoscopy, while admirable, do not concern many of us, whom lack of funds confines to far less expensive apparatus. A variety of sounds and searchers are on the market. A telephonic searcher is described by Jacobson, who follows Agnew's dictum that in the diagnosis of stone, the ear is more trustworthy than the sense of touch. This is beyond question, but with over-sensitive instruments it is very easy to hear too much, and the rugae of the vesical mucous membrane may closely imitate the click of a stone. Hollow searchers or silver catheters are superior to solid sounds for transmitting the click to the ear. The best plan the writer has tried is as follows: With the searcher in the bladder, the bell of a stethoscope is placed over the pubes above the hair-line. Here the metallic click of a stone can be
The Choice of Operation for Vesical Calculus.

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easily distinguished from the smoother tap of a membranous fold. If still in doubt, the searcher may be coated with hard paraffin (melting point 130° F.) or wax, as with ureteral sounds, carefully inserted, moved laterally about the floor of the bladder and withdrawn. If lateral scratches appear, stone may be suspected.

2. The size of the stone is of prime importance in determining the choice of operation. The graduated searcher is useful here, but it is hard to prevent the stone from moving in the bladder and the penis from elongating, as the searcher is moved from one end of the stone to the other. Bi-manual examination, with one finger in the rectum (or vagina, after Kelly) is much more accurate. With the bladder empty, the hand on the abdomen will bring the stone within reach, and its size and general shape can be appreciated. Another plan, and perhaps the most accurate, is to sound with a small lithotrite, easily inserted, which will grasp the stone and register its size on its own scale.

3. The presence of a number of stones in the bladder is said to contra-indicate the crushing operation. The searcher may indicate two stones if it happens to rest between, and can by rotation tap one on each side, but not more than two can be definitely shown. Here again the finger in the rectum is a better guide. Two or more stones may be felt, and the general size of each may be made out.

4. The urine may give a clue to the chemical composition of the stone, but the crystals in the urine at the time of examination may not be identical with those constituting the stone. Or the stone itself may not be uniform, as in the case of "alternating calculi," whose successive layers vary between uric acid, calcium oxalate and the phosphates. Careful use of the sound is the best indicator. The sharp, grating clicks of the mulberry surface of an oxalate stone are characteristic. It is a wise plan to save samples and practice in a bowl of water lined with flannel. nowhere is the "tactus eruditus" of greater advantage than in distinguishing the character of a stone in the bladder. But never be too sure. An oxalate calculus coated with urates cost the writer the blade of his best lithotrite, and necessitated an immediate lithotomy to extract both stone and steel fragment.

METHODS OF OPERATION.

The first choice, it seems to the writer, should always be made as between the crushing and the cutting operations. The former is certainly the more attractive in many ways; less risk, speedier convalescence, and if thoroughly done, no greater danger of recurrence. Its
disadvantages, as usually stated, are its limitation to small stones the length of time the patient must be kept under the anaesthetic; and the frequency with which small fragments are left behind, to start a recurrence.

The first disadvantage may be conceded as practically insuperable unless perineal lithotrity is practised. But as this involves a cutting operation, it will not be considered here. No steel instrument small enough to pass through the average urethra can transmit pressure enough to crush large stones. Kelly gives 2 to 3 cm. as the size of stones suitable for crushing, although Keegan reports a stone weighing 702 grains removed by this method. This, however, was from a female bladder, where the short straight urethra facilitates extraction of the fragments. In Dr. Post's series of 453 vesical operations, 140 were treated by lithotrity, with 8 deaths; five of these with uræmic symptoms, two from septicaemia and one whose cause was not mentioned. The average age of the patients was over 50 years, so that a mortality of 5.7 per cent. is not surprising. Still it is evident that even in practised hands this operation is not to be undertaken lightly. The average weight of the stones removed was about 15 grams, the largest 122.50 grams (over 4 ounces). This case developed gangrene of the corpora cavernosa and died of septicaemia on the ninth day after operation.

The writer believes that 3 cm. is a fair limit of size for stones to be crushed in adults and 2 cm. in children. Six out of 40 cases here fell within these limits: 3 were in children and 3 were in young adults, and there were no deaths.

Fifteen of Post's cases were recurrences from previous lithotrity. The difficulty of being sure that every minutest fragment has come away in the evacuator, is very great. To facilitate removal of fragments, Kerr devised a tube shaped like an inverted U so that, through at least part of their course, the fragments might fall toward the bulb of the evacuator. The writer has never used such a tube, because it seemed to him that the fragments must still be washed up over the bend of the U, and that a simpler method was practicable.

This consists in raising the patient to a semi-sitting posture, so that a straight tube may have a slope from the bladder toward the evacuator, and no fragments may have to be lifted against gravity by the current of fluid used. To avoid the risk of raising a patient under chloroform from the recumbent position, we have carried out the procedure wherever possible without using a general anaesthetic. Here the well-known ability of the Chinese to endure pain has been found most useful. Three of the six cases treated by lithotrity had
EVACUATOR. Figure 1.
The Choice of Operation for Vesical Calculus.

no anaesthetic at all; the other three—two children and one adult—had chloroform during the crushing only, and were then raised on a long cushioned pad till the evacuator had a perceptible slope from the bladder downward, when the fragments were quickly removed before the patient fully recovered from the anaesthetic. This demanded careful watching of the pulse during the evacuation. Only one case showed even a momentary disturbance, which was relieved at once by lowering the patient to the table.

The writer found that the old type of Pigetot evacuator could not be lowered enough to bring its tube to a downward slant without striking the table. So he made the one shown in Fig. 1, after the improved Bigelow model, lacking the jointed standard at the glass end. As can be seen, this evacuator consists only of the red rubber bulb taken from an enema-syringe, with its small end inserted in an ordinary wide-mouthed glass bottle. A bit of brass tubing with two lock-nuts to clamp the rubber, was put in the bottom of the bulb and the old evacuating tubes connected to it by rubber tubing. This was tried on cinders in a flannel-lined bowl of water (excellent practice for a beginner with the lithotrite) and found to work quite as well as the old one; while it could be lowered to the line of the downward-sloping tube without interference. The writer believes that while lithotrites and evacuators are not cheap, they should be part of the equipment of every mission hospital where stone cases are encountered. The combined lithotrite and cystoscope described by Walker would seem to have great advantages in the effort to thoroughly remove all fragments. In this a tubular cystoscope gives a view between the blades of the lithotrite, and when withdrawn, leaves a channel through the instrument which serves as an evacuating tube.

CUTTING OPERATIONS.

Four-fifths of Dr. Kerr's cases and over two-thirds of Dr. Post's were considered unsuited for the crushing operation, and following the general practise of 25 years ago, were dealt with very largely by the perineal route.

The relative merits of median and lateral lithotomy do not need to be dealt with here. Opinion has so changed now that Clarke says: "The lateral operation is almost as little employed as the median, and will probably be completely abandoned." It is interesting to note that Post, beginning with the lateral incision, seems later to rely almost wholly on the median or Italian method, so that 142 out of 202 perineal operations were done with a median incision.
PERINEAL LITHOTRITY.

The great objections to both the above forms of operation are: danger of hemorrhage from the rich vascular supply at the base of the bladder, danger of wounding the rectum or the vas deferens, and lack of room to deal with large stones. To overcome these, various methods have been tried, chiefly lithotritry through the perineal wound. Kerr tried a mallet and chisel, while later operators have used extra large and heavy lithotrites. Reginald Harrison by this method broke up a stone weighing over 3 ounces in less than five minutes, so as to admit of easy removal. Clarke considers that this operation has a future before it, especially in dealing with large stones in old men. But in view of the overwhelming choice of the suprapubic route for removal of the prostate in just such cases, it would seem that any stone too large or too hard for crushing, should be removed in that way, if the bladder is to be incised at all.

SUPRAPUBIC LITHOTOMY.

About 20 years ago the suprapubic operation was revived. Between 1890 and 1906, Dr. Post performed this operation 39 times, with 9 deaths, as against 122 perineal operations in the same period, with 6 deaths. The larger mortality of the suprapubic list may be accounted for by the following table:

<table>
<thead>
<tr>
<th>Operations 1890 to 1906.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Ops.</td>
</tr>
<tr>
<td>Perineal:...</td>
</tr>
<tr>
<td>Suprapubic:...</td>
</tr>
</tbody>
</table>

With the exception of one huge stone of 350 grams (121/4 ounces) removed by Dr. Post in 1881, the largest three stones described were removed by the suprapubic method. These were 166, 150, and 133 grams respectively.

Further, it appears that the local Syrian surgeons do not hesitate to operate for stone, and the Arabs also operate, holding the stone against the perineum with one finger in the rectum and cutting down upon it with a razor. Two of the cases in this list had been previously operated upon three times by local talent, leaving a variety of fistulae and fragments for our author to deal with. A number of striking diagrams of these cases are appended.

Out of 34 lithotomies done here 32 were suprapubic and two median perineal; both the latter for stones wholly or in part impacted in the prostate. There were 6 deaths, three of which cases arrived almost moribund, and died from exhaustion. The other 3 died
suddenly from 5 to 9 days after the operation, with no uræmic or other symptoms which would seem to account for the death. Dr. Thos. C. Paterson, of this province, after a large experience with stone cases, has also noticed this form of death, and is equally at a loss to account for it. The patient appears to be progressing well, when suddenly the pulse weakens, and without urinary or cerebral symptoms the patient dies in one to two days. So far the writer has found no explanation of these cases.

**TECHNIQUE OF SUPRAPUBIC CYSTOTOMY.**

Several valuable points about this operation have been gleaned from the writings of various authors. The preparation of the patient is as usual for major operations. The rectal bag formerly used, seems now generally dispensed with. Air-distension of the bladder seems also a common practice both for cystoscopy and for operative work on the bladder. The writer has found that by leaving in the bladder only a small amount of fluid to serve as an air-lock, and distending the viscus with air till a good area of tympany appeared above the pubes, the peritoneal reflection was lifted well out of the way, and the bladder could be opened without a gush of urine-tainted fluid flooding the wound.

A method of opening the bladder so as to avoid fistulae and tend to primary union, was suggested by Wullstein at the German Congress of Surgery in 1907. He believed that invagination alone, because of the thickened condition of the bladder walls, was not efficient in closing an incision therein. So he recommended a transverse incision half-way through the bladder wall, with the stripping up of a layer above and below it, and a vertical incision through the lower layer of muscle and mucous membrane. This permits extensive invagination and brings broad surfaces in contact to prevent leakage from the bladder. Such an incision has been used here in about a dozen cases, and has been found very satisfactory.

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**Fig. 2. Crossed Incision in Bladder Wall.**

A. Suprapubic incision.  
B. Primary incision in bladder wall.  
C. Final incision into cavity of bladder.  
D. Fixation sutures, afterward knotted so as to invaginate muscular layers.
It can be stretched to permit the passage of surprisingly large stones, and its results as regards primary union are excellent. (See Fig. 2.)

The writer having been for some time without trained help, found that an automatic retractor between the recti muscles enabled him to do the operation single-handed without undue delay. He believes that a median perineal opening is of great use at times for complete and continuous drainage of the bladder in old cases with foul urine and infected bladder. This double opening has been used 4 times in 32 cases. The stone was removed through a suprapubic opening, the bladder thoroughly explored, and at the close of the operation a median incision made upon a grooved staff, as in external urethrotomy. The upper wound may then be closed with a drain to the pre-vesical space, or a tube left in both openings, according to the conditions found. In extreme cases, through-and-through irrigation was done from the upper to the lower tube.

For the after-treatment of suprapubic wounds which are left open, or re-open of themselves, an ingenious device has been described by Irving. It is a metal box, likened to "a straw hat with a curved rim," held down tightly to the pubes by straps around the waist and over the perineum. The "crown" is removable to give access to the wound, and is perforated to transmit a rubber tube into the bladder for irrigation. Urine is drained away by tubes attached to the most dependant part. The advantages claimed are: no leakage, cannot be displaced, continuous irrigation easy, saves a large amount of cotton, and prevents bed sores from sodden bed. The writer is having one of these made, of slightly modified design (see Fig. 3), secured by bandages which can be removed instead of straps which may become foul. By attaching these to the elevated handles, downward pressure can be made to prevent leakage.

BIBLIOGRAPHY.

1. Post: (New York) Medical Record, July 6, 1907.
APPENDIX TO REPORT OF FIRST RESEARCH COMMITTEE.

One of these reports, that of Dr. Sanger, of Hinghwa, Fokien, should have appeared in the 3rd Interim Report of the Committee. Owing to some mistake it was omitted by the printers. Our apologies are due to Dr. Sanger for the delay. The summary, though short, is of considerable interest, as we are greatly lacking in figures relating to infections in women.

The second report, that of Dr. Whyte, of Suabue, Kwangtung, reached us too late for publication in the final report of the Research Committee. No comment of ours could make it more interesting.

JAMES L. MAXWELL, M.D., Chairman.

SUMMARY OF F运用AL EXAMINATIONS BY DR. SANGER, HING-HWA, FOKIEN.

Ninety-five cases, all women, except one.

Lumbricus: 40=24°/a, much too low; probably some of these cases had already had santonin.

Trichocephalus: 30=31.5°/a

Ankylostoma: 14=14.7°/a (one of these a man).

This establishes the fact that ankylostoma is very prevalent, though in many cases not affecting the patient to any marked extent.

ENGLISH PRESBYTERIAN MISSION HOSPITAL, SWABUR.

Examination of the faces of 253 cases, by G. Duncan Whyte.

Method of examining.—A small amount of the specimen is placed upon a cleaned slide with a Pakes' hare-lip needle; two or three drops of normal saline are then added and thoroughly mixed with the needle. Macroscopic portions of débris (such as rice-husks, etc.) are then removed with the needle, and a cover-slip (seven-eighths of an
inch by 1½ inches) is let down; air-bubbles being carefully excluded. Any excess of fluid may be removed with filter paper, so that the cover-slip lies firmly on the slide with a thin uniform layer of diluted faeces between it and the slide. If the specimen is not diluted, one is apt to have some opaque masses on the slide which may obscure one’s view if excess of fluid is left; all portions of the film are not in focus at the same time, which tends to confusion.

Prevalence of Infection.—In only three cases out of 253 did one fail to find the eggs of at least one parasite, showing that 98.8 per cent. were infected. In some of the cases in which eggs are recorded as being present they were only found on the examination of a second or third slide. As those cases which showed no egg were not treated with either santonin or thymol it is quite possible that male Ascaris lumbricoides, or a few ankylostomas were present. This prevalence of infection is also shown by the number of cases in which more than one variety of parasite was present. Three varieties of intestinal parasite were found in 54 per cent. of the farmers who were examined.

N. B.—It may be noted here that many of the people in this district work not only at farms, but also at other seasons of the year as fishermen. An endeavour was made, as far as possible, to enter all such cases as “Farmers,” but I believe some have been recorded under the other heading.

Ascaris Lumbricoides.—This parasite was present in 85 per cent. of the cases examined. It is especially prevalent amongst the youngest patients examined, getting less frequent as they advance in years. (See table.)

The “Ascaris X” egg was found in 120 out of the 216 cases that were infected with ascaris. In 22 of these cases it was present alone. There seems no reason to doubt that if only female worms were present in this number of cases, there may have been about twenty cases in which no ascaris eggs were found but which were infected with male ascaris worms.

As regards symptoms due to ascaris infection, I have nothing fresh to note. I have seen cases of oedema (especially in children) with no albumin and no casts in the urine which cleared up at once after the passage of thirty or forty worms. I am inclined to agree with the general Chinese view in this district that no harm need result from the presence of a few of these parasites. I think over a score of worms an excessive allowance for a small child.
Appendix to Report of First Research Committee.

Trichocephalus Trichiurus.—This parasite was present in 71 per cent. of the cases examined. It is relatively more frequent in the cases under twenty and over forty; only 66 per cent. of those in the intermediate period being infected. I have not been able to associate any symptoms with the presence of this parasite. The extremely rare occurrence of true appendicitis in South China, and the large number of cases infected with this parasite, leads one to doubt whether they are often related to one another as cause and effect.

Ankylostoma Duodeneale and Uncinaria Americana.—These parasites were often found together in the same person. One or other was present in 66 per cent. of cases examined. It was only occasionally met with in those under twenty, common in those over 40 and in 75 per cent. of those between 20 and 40 years of age. It is especially present amongst farmers. Many patients harbour this parasite and have none of the symptoms of ankylostomiasis. Many patients suffer from ankylostomiasis and have only a small number of worms left in the intestine when they present themselves for treatment.

O pisthorchis Sinensis (Clonorchis S.)—This was only present in 3 cases (1.2 per cent.), and all these were visitors from the adjoining prefecture of Chao-chow (Swatow), where I found this parasite present in 16.8 per cent. of the general population.

Protozoa.—Actively motile, flagellate, unicellular bodies were found in several cases. They were always found in cases of acute diarrhoea.

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Summary of Investigation of 255 Cases. (Swabur.)

<table>
<thead>
<tr>
<th>Age-period</th>
<th>Cases</th>
<th>Eggs</th>
<th>Ascaris</th>
<th>Tricho.</th>
<th>Ankylost.</th>
<th>O pisth.</th>
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<tr>
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<td>14</td>
<td>12</td>
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<td>1</td>
<td>28</td>
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<td>37</td>
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<td>1</td>
<td>38</td>
<td>37</td>
<td>34</td>
<td>2</td>
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<td>51—</td>
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<td>1</td>
<td>23</td>
<td>19</td>
<td>18</td>
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<tr>
<td>Total</td>
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<td>3</td>
<td>216</td>
<td>181</td>
<td>169</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Age-period</th>
<th>Ascaris</th>
<th>Percentage infected with Trichoceph.</th>
<th>Ankylost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—10</td>
<td>100%</td>
<td>86</td>
<td>21%</td>
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<tr>
<td>11—20</td>
<td>95</td>
<td>81</td>
<td>43</td>
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<td>90</td>
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<td>61</td>
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<td>26—30</td>
<td>75</td>
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</tr>
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<td>31—40</td>
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<td>41—50</td>
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<tr>
<td>51—</td>
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<td>66</td>
</tr>
<tr>
<td>Average for all ages</td>
<td>85</td>
<td>71</td>
<td>66</td>
</tr>
</tbody>
</table>
The China Medical Journal.

FASCIOLOPSIS BUSKII AND RELATED SPECIES.

By James L. Maxwell, M.D., Tainan, Formosa.

In the few criticisms that I make here on Professor Ward's paper, I do not wish in the least to detract from the value of that paper, which marks a distinct advance in our knowledge of these worms. It is only to one or two minor points that I wish to refer, but I think these are of sufficient importance to demand some attention.

Under the heading of Fasciolopsis Buskii, Professor Ward states "Skin without spines." He adds a foot note pointing out that Heanley maintains that the cuticle has spines. Now it is quite evident that an important point is raised here. The explanation, however, is probably easier than would seem at first sight. The fact of the matter is that there are two varieties (we hesitate to call them different species on such slight grounds) of the worm. The variety found in Central and North China is without spines. Ward's specimens came, I believe, from this region, and he correctly describes them. We have repeatedly examined a number of such specimens and have found them always without spines. On the other hand, a specimen supplied to us by Whyte, of Swatow, had easily observable spines on the anterior quarter of the body. This fact was first pointed out to us by Professor Leiper, Helminthologist to the London School of Tropical Medicine, and we have since confirmed the point for ourselves. Heanley's specimens no doubt also came from South China, and he is therefore equally right in describing the spines. It is possible, though we hesitate to maintain this position, that we have here two species—one Fasciolopsis Buskii and another closely related species of the same type. What leads us rather to favor this view is that the worm as seen by ourselves in specimens from South China is much thicker and fleshier than the many specimens we have seen and have in our possession from different places in Central China. Given the worms from South and Central China lying together, we should have no difficulty in picking out with the naked eye from which of these two regions they came.

Under the heading of "Fasciolopsis Rathouisi," Ward describes what may very possibly be a new worm. We wish to join issue very strongly with him on the question of the name. Distomum Rathouisi was the name given to a trematode worm described by Poirier, to be
Two Interesting Cases.


Two cases having recently come under my notice which are not devoid of interest, a few notes upon them may be submitted to the readers of the China Medical Journal.

The first case was a lad of eighteen, who had been successfully treated by my predecessor for oedema of cardiac origin. I was sent for recently and found him breathless and prostrated. His pulse was uncountable, but the cardiac beats came to over 260 a minute. This
is shown in the tracing. His systolic blood pressure was only equal to 80 millimetres of mercury. Powdered digitalis was given along with squills and mercury, two grains of each thrice daily, with Epsom salts each morning, but by the fourth day no improvement was noticeable. The tincture of digitalis was then given in doses of 20 m. t. i. d., but after two days of this there was still no change. On the sixth day the pulse was uncountable, and as his bowels had not been opened for two days, he was given three grains of calomel (in doses of ½ grain every hour), to be followed by magnesium sulphate the following morning.

When I called next day he was walking about the room cutting up sugar-cane to sell at the house-door; no breathlessness, no feeling of discomfort; pulse only 84. The annexed tracing was then taken.

I do not believe that this sudden improvement was the result of the digitalis given on the preceding six days. One does not, of course, expect much effect from this drug for the first three days, but I have not previously had experience of its effects being delayed for so long a time as in the present case. If the patient had not been treated in the beginning both with mercury and magnesium sulphate one might have thought that his improvement was to be attributed to the calomel given on the sixth day, but under the circumstances I believe his sudden recovery is not a result of any treatment he received from me. Careful enquiries by a reliable Chinese assistant failed to discover that any native drug had been surreptitiously administered, so we must regard the case as one of *paroxysmal tachycardia*; which arose without any evident reason and subsided in the same inexplicable fashion.

The second case was the man suffering from flat-foot, the imprint* of whose feet is shown in the photograph. Considering how commonly this is met with at home it is not, apparently, a case of much interest, but in South China I believe the condition to be of much less frequent occurrence. In the course of six years' practise at three hospitals with large out-patient departments this is only the fourth case of *pes planus* that I have diagnosed, and I do not think I am alone in this experience.

Authorities in home lands are not agreed as to the causation of this condition. Some insist on a congenital weakness which permits the arch of the foot to give way without any undue strain. Others take little

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* The imprints were made as follows: A sheet of blotting paper is moistened with a saturated solution of potassium ferro-cyanide and allowed to dry. The patient's feet are then moistened with a solution of any ferric salt (in this case a 1:10 dilution of Liq. Ferri Perchlor. B. P.), and he is directed to stand upon the prepared paper. A Prussian blue impression results.
Pulse Tracing during an Attack of Tachycardia.

Pulse Tracing upon Recovery.

Imprint from a Case of Flat-foot, compared with Health Imprint.
A Colloid Tumor and a Sarcoma.

I account of congenital weakness, but believe that the arch gives way on account of under strain from long-continued standing, etc. A third class describe two different forms of flat-foot—a "congenital" and a "static or adolescent." If these causes were sufficient in themselves to produce flat-foot one would expect to meet with this condition much more often than one does, or at any rate than I have. Theoretically congenital conditions might be met with as frequently in the East as in the West, and as regards "strain" so few of our poorer patients wear shoes calculated to give any real support to the arch of the foot and so many have occasion to stand for long periods every day (either selling in the market-place or acting as pedlars) that one would expect cases of flat-foot to be very common.

It would be interesting to know how often doctors in other parts of China meet with congenital dislocation of the hip, or with varieties of club-foot, as hitherto I have not diagnosed either.

It is now several years since the Editor of the CHINA MEDICAL JOURNAL sent out a schedule asking for returns as to the occurrence or otherwise of certain specified diseases. If a summary of the results thus obtained could be published, and if a further series of enquiries could be directed as to several other well-marked conditions, much interesting information might be elicited. This might throw light on some problems of etiology which are not yet satisfactorily solved, for example, aneurysm seems to be relatively rare in the South of China, though syphilis and liability to strain are certainly as common as in England and undue indulgence in alcohol is not infrequent.

A COLLOID TUMOR AND A SARCOMA.

DEAR DOCTOR: Enclosed is a photo, of a little boy of 13 years, from whom I removed a large colloid tumour of thyroid. About seventeen months ago a swelling was noticed to the left side of the neck, and it gradually increased. A Chinese doctor inserted three needles posteriorly, but as these failed to mend matters, a white medicine was applied. This caused the skin to slough, and he sought our help, for the smell and weight of the tumour was inconvenient.

On admission a tumour was found in region of thyroid. It had its long axis outwards, and not along trachea. It reached from cricoid down to sternal notch, and was movable. The superficial skin was sloughing and green, and one side had small unhealthy granulations. The boy had a yellowish tinge (cachexia), but was not much emaciated.
After a week's cleansing applications the tumour was removed. It extended from both carotid sheaths laterally, and was post-sternal below, so I ligatured the pedicle with three sutures and left it. Owing to the area of operation not being aseptic, the lower part of wound had to heal in by granulations. I was afraid of the result, as two months previously I removed a half of the thyroid from an old man, and the wound would keep up a slight discharge. He gradually went down hill and died.

With the boy I tried a 5-grain tabloid (thyroid extract) every night, and whether this contributed to the result I cannot say, but now, twenty days after operation, only a small part at lower end of wound remains to be covered with skin. The boy also has improved; has lost the yellow tinge, and is running about the hospital compound. The pulse has continued at 70 to 80 ever after the 3rd day, and temperature 99°.

I report this in view of others being perhaps discouraged from thyroid operations, as the text-books do not give one much encouragement to tackle them. I may say I used dry gauze every 24 hours as Treves, and Jackson and Stewart recommend dry sterilised gauze to absorb the secretion if any.

An Inoperable Sarcoma of Shoulder Joint.—A farmer man, who presented himself with swelling of three months’ duration around right shoulder joint. Diagnosis: Sarcoma too extensive to operate.

We had several other sarcoma cases, all following one another. One of both tonsils, one of knee joint and femur, and one of lower jaw, all too late for operation. I send this contribution if of interest to your readers. Being myself new to China, I am glad to see what others are doing, and also am sure others like to know what their confrères are seeing and doing.

Yours sincerely,

ALEX. R. YOUNG, L.R.C.P. and S., Ed.

MOURDEN HOSPITAL.
REPORT ON THE HEALTH OF TENGYUEH FOR THE SIX MONTHS ENDED 30TH SEPTEMBER, 1909.

By Dr. N. CHAND.

Sanitary Condition.—There is nothing noteworthy under this heading, as no attention has been paid during the period towards improving the drainage, latrines and personal hygiene, etc.

Meteorological.—The following table shows the meteorological readings taken at this port:

<table>
<thead>
<tr>
<th>Month</th>
<th>Thermometer Aver.</th>
<th>Rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum</td>
<td>Minimum</td>
</tr>
<tr>
<td>April</td>
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<tr>
<td>May</td>
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<td>July</td>
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<tr>
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<td>76.42</td>
<td>62.45</td>
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<tr>
<td>September</td>
<td>84.70</td>
<td>62.53</td>
</tr>
</tbody>
</table>

The highest reading of the thermometer was on the 21st September, 1909, when it registered 95°, which is exceptionally high this year; the highest rainfall was 2.83 inches on 27th June, 1909.

General health of the natives and that of the foreigners during these summer and rainy months was fair.

The total number of patients treated during this period was 494 (490 out and 4 in-patients).

The following table gives the classification of the diseases treated:

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malarial fevers</td>
<td>122 Out, 2 In</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>80 Out</td>
</tr>
<tr>
<td>skin</td>
<td>58 In</td>
</tr>
<tr>
<td>eye</td>
<td>36 In</td>
</tr>
<tr>
<td>respiratory system</td>
<td>17 Out</td>
</tr>
<tr>
<td>nervous</td>
<td>8 In</td>
</tr>
<tr>
<td>circulatory</td>
<td>5 In</td>
</tr>
<tr>
<td>generation</td>
<td>6 In</td>
</tr>
<tr>
<td>urinary</td>
<td>5 In</td>
</tr>
<tr>
<td>connective tissue</td>
<td>11 In</td>
</tr>
<tr>
<td>ear</td>
<td>3 In</td>
</tr>
<tr>
<td>Ulcers</td>
<td>25 In</td>
</tr>
<tr>
<td>Local injuries</td>
<td>14 In</td>
</tr>
<tr>
<td>Debility and Anaemia</td>
<td>16 In</td>
</tr>
<tr>
<td>Dysentery</td>
<td>11 In</td>
</tr>
<tr>
<td>Venereal diseases</td>
<td>7 Out</td>
</tr>
<tr>
<td>Syphilis</td>
<td>12 Out</td>
</tr>
<tr>
<td>Gonorrhcea</td>
<td></td>
</tr>
<tr>
<td>Worms</td>
<td>23 Out</td>
</tr>
<tr>
<td>Goitre</td>
<td>14 Out</td>
</tr>
<tr>
<td>Midwifery cases</td>
<td>3 Out</td>
</tr>
<tr>
<td>All other diseases</td>
<td>9 Out</td>
</tr>
<tr>
<td>Total</td>
<td>490 Out</td>
</tr>
</tbody>
</table>
The most prevalent diseases, treated during the period under report, were malarial fevers, diseases of the digestive system, of the skin and of the eye, ulcers and worms. Most of the malarial patients treated in the dispensary were Chinese who had come here from Bhamo or neighbourhood. On account of plague, which broke out in Bhamo at the end of May, and which lasted until August, most of the Chinese left the infected region, returning to their homes in their native country. As this occurred during the rainy season, and as they had to travel through the low and damp valleys of the Bhamo-Tengyueh road, which are malarial, few escaped this sickness. I must say that though numerous, most of these cases were not of a severe form. However some of the diseased, after having undergone every sort of Chinese treatment, were brought to me by their relatives in a hopeless condition. I have been successful in restoring health to nearly all such cases, with the exception of one, who was practically dead when I attended him. Salines and big doses of quinine, together with an improvement in their general sanitary conditions, cured all the above cases of malaria. I may mention that many cases of even one month's sickness were cured with a single dose of 20 grs. of quinim sulph.

Syphilis.—The people here say that syphilis is a disease imported from Burma, and therefore they call it also a foreign disease, Yang-mei-ch’uang (楊梅瘧). But I doubt this, as I have seen some syphilitic (males and females) who have never been in Burma. I also hear that these patients do not generally like to come for treatment, as they feel ashamed.

Goitre.—Very satisfactory results have been secured in the treatment of goitre with preparations of iodine, both internally and externally.

Worms.—I have treated only one patient for tape worm since I am here; all the others were suffering from round worms, children as well as adults. I think the cause of this common complaint here is due to the use of liquid manures for growing vegetables, and the washing of them in the stagnant or dirty water.

Three Midwifery Cases.—They all were obstetric ones; had head presentation, were primæpara and were delivered by forceps; in one case the child was born alive and in the two others dead children were born. All the three mothers are doing well. Besides these I was called to attend on two other obstetric cases, on different occasions, but whilst I was going to their homes, message in both cases met me on the way, informing me of the deaths of the women concerned.

No case of poisoning has been treated; on one occasion I was called to attend on a woman, who had taken opium, but when about to
leave my house, I was told that the woman had just died. By reading these few lines one will note that the people send for the foreign doctor so late that his services are nearly useless.

_in-door Patients._—Three out of the four in-patients were Customs employees and one layman.

*Surgical Operations._—The following operations were performed during the period under review:—

<table>
<thead>
<tr>
<th>Operation</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evacuation of abscesses</td>
<td>9</td>
</tr>
<tr>
<td>Extraction of teeth</td>
<td>7</td>
</tr>
<tr>
<td>Opening of gumboil</td>
<td>1</td>
</tr>
<tr>
<td>Delivery by forceps</td>
<td>3</td>
</tr>
<tr>
<td>Circumcision of phimosis</td>
<td>1</td>
</tr>
<tr>
<td>Stitching of the coverings of the testicle</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
</tbody>
</table>

All the above operations were successful.

*Miscellaneous Notes._—I am glad to note that these people are getting more and more belief in foreign treatment. They think it a blessing to have it available here, because they can have another chance to cure after having tried every sort of Chinese treatment without success. Besides minor ailments, at present the people prefer the foreign treatment for obstetric cases, complicated malarial cases and for surgical diseases, as the native Chinese doctors have got no training to attend on such cases.

The rains this year began earlier, the summer heat has not been very excessive, but sometimes there have been sudden changes in the weather on account of heavy rain, wind and warm sun, which caused the foreigners on few occasions to suffer from chill, etc.; otherwise there has been no other disease among them.

Though many men came here from Bhamo, while there was an epidemic of plague there, no case has ever been seen or heard of here or in the neighbourhood, nor has any other contagious or infectious disease occurred during the period.

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RAPPORT MÉDICAL POUR LE PORT DE PAKHOI,
AVRIL-SEPTEMBRE, 1909.

Par le Dr. Ponthion.

*Pathologie Européenne._—Pendant le mois d’avril nous avons eu 4 malades, 2 hommes et 2 enfants avec 22 consultations. Un homme était atteint d’une affection des voies urinaires, un autre d’une affection du tube digestif, un enfant d’une affection des yeux et un autre enfant d’une affection du tube digestif.
Pendant le mois de Mai nous avons eu 4 malades : un homme, une dame et 2 enfants avec 12 consultations. Un homme a été atteint d'une affection du système circulatoire, les 2 enfants d'une affection du tube digestif et une dame d'une affection des organes génito urinaires.

Pendant le mois de Juin nous avons eu 8 malades à soigner avec 33 consultations : 2 hommes, 2 dames et 4 enfants. Un homme a été atteint d'affection du système circulatoire un autre d'une affection du tube digestif : une dame a été atteinte dœdème, et anémie, une autre d'une affection des organes respiratoires, un autre a été atteint d'une affection de la peau et les deux autres d'une affection benign des fonctions digestives.

Deux des malades du mois de Juin atteints, le mari d'une affection du système circulatoire maladie de coeur et phlébite la femme, d'œdème et anémie, ont été évacués sur l'Hôpital du Pic de Hongkong pour y être soignés et bénéficier des avantages d'un changement d'air et de température.

Pendant le mois de Juillet nous avons eu 5 malades avec 25 consultants 3 hommes dont 2 atteints d'affection du tube digestif et un atteint de paludisme, une dame atteinte d'affection des voies genito-urinaires et un enfant de troubles digestifs.

En aout nous n'avons eu que 5 malades avec 6 consultations, 2 hommes, une dame et 2 enfants. Un homme était atteint d'une affection du tube digestif un autre d'une affection des voies urinaires. Un dame a présenté, après un accident dont elle avait été atteinte le mois précédent, de l'anémie ; les deux enfants ont présenté l'un une indisposition légère de l'intestin, l'autre une plaie du doigt sans gravité.

Enfin au mois de Septembre, nous n'avons eu à donner que 11 consultations au personnel Européen des douanes impériales : 4 hommes, une dame et un enfant ont été visitée pour des affections peu graves : deux hommes et une dame pour des troubles digestifs, un homme pour anémie, un homme pour paludisme et l'enfant pour une légère bronchite.

Somme toute les mois de Juin et de Juillet ont été les mois où nous avons eu le plus grand nombre de malades et le plus grand nombre de journées d'indisposition c'est donc pendant ces deux mois qui d'ailleurs ont été très chauds et où il y a peu de pluie cette année que l'état sanitaire a été le plus défectueux.

Pathologie Indigène.—Depuis le 1 Janvier nous avons enregistré sur notre cahier de consultations de l'Hôpital Français de Pakhoi 32 malades employés indigènes ou membres de la famille avec 90 consulta-
Deux de ces employés atteints l'un de tuberculose pulmonaire, l'autre d'œdème et de cachexie paludéenne sont morts. Depuis le ler avril nous avons enregistré 20 employés subalternes : 3 lettres ont été soignés pour embarras gastrique et bronchite.

La fille d'un employé indigène de la Douane, âgée de 10 ans atteinte de peste bubonique est morte après 2 jours de soins.

Épidémiologie.—La peste en effet a apparu le 22 avril pour ne cesser que le ler Juillet : elle a donc sévi pendant plus de 2 mois, en mai et Juin surtout c'est l'époque ordinaire de son apparition si bien que on peut dire que Pakhoi est un foyer endémique de cette maladie. Elle se réveille tous les ans pendant les mois de l'année favorables à son éclosion.

Le tableau suivant du nombre approximatif des décès dus à cette maladie qui a été dressé par renseignements et pour certains par les jours de soins donnés, nous montrera l'importance de l'épidémie.

<table>
<thead>
<tr>
<th>Date</th>
<th>Cas décédés</th>
<th>Date</th>
<th>Cas décédés</th>
<th>Date</th>
<th>Cas décédés</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Avril</td>
<td>2 décès</td>
<td>1er Juillet</td>
<td>1 décès</td>
<td>au total 87 cas dont 82 décès, 5 guérisons.</td>
<td></td>
</tr>
<tr>
<td>1er Mai</td>
<td>2 décès</td>
<td>2 Mai</td>
<td>2 décès</td>
<td>1er Juillet l'épidémie est finie.</td>
<td></td>
</tr>
<tr>
<td>3 Mai</td>
<td>4 décès</td>
<td>4 Mai</td>
<td>2 décès</td>
<td>9 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>5 Mai</td>
<td>3 décès</td>
<td>6 Mai</td>
<td>1 cas (guéri)</td>
<td>10 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>7 Mai</td>
<td>2 décès</td>
<td>8 Mai</td>
<td>2 décès</td>
<td>11 Juin 2 cas 15 décès (2 guéris)</td>
<td></td>
</tr>
<tr>
<td>9 Mai</td>
<td>2 décès</td>
<td>10 Mai</td>
<td>1 décès</td>
<td>12 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>11 Mai</td>
<td>2 décès</td>
<td>12 Mai</td>
<td>2 cas (2 guéris)</td>
<td>13 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>13 Mai</td>
<td>2 décès</td>
<td>14 Mai</td>
<td>2 décès</td>
<td>14 Juin 2 décès</td>
<td></td>
</tr>
<tr>
<td>15 Mai</td>
<td>2 décès</td>
<td>16 Mai</td>
<td>1 décès</td>
<td>15 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>17 Mai</td>
<td>2 décès</td>
<td>18 Mai</td>
<td>2 décès</td>
<td>16 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>19 Mai</td>
<td>2 décès</td>
<td>19 Mai</td>
<td>1 décès</td>
<td>17 Juin 2 décès</td>
<td></td>
</tr>
<tr>
<td>20 Mai</td>
<td>1 décès</td>
<td>21 Mai</td>
<td>2 décès</td>
<td>18 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>22 Mai</td>
<td>1 décès</td>
<td>22 Mai</td>
<td>2 décès</td>
<td>19 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>23 Mai</td>
<td>2 décès</td>
<td>24 Mai</td>
<td>2 décès</td>
<td>20 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>25 Mai</td>
<td>1 décès</td>
<td>26 Mai</td>
<td>1 décès</td>
<td>21 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>27 Mai</td>
<td>2 décès</td>
<td>28 Mai</td>
<td>1 décès</td>
<td>22 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>29 Mai</td>
<td>1 décès</td>
<td>30 Mai</td>
<td>2 décès</td>
<td>23 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>31 Mai</td>
<td>1 décès</td>
<td>31 Mai</td>
<td>1 décès</td>
<td>24 Juin 1 décès</td>
<td></td>
</tr>
<tr>
<td>1er Juillet 1 décès, l'épidémie est finie. au total 87 cas dont 82 décès, 5 guérisons.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Si l'épidémie n'a pas été plus meurtrière c'est que beaucoup de personnes de l'entourage des malades ont reçu des injections préventives de lymphe sérum de Haffkine et des injections de sérum antipesteux de Yersin. Un certain nombre d'indigènes employés du personnel européen de la douane impériale a profité des injections préventives, pratiquées tous les matin de 10 a 11 heures à l'Hôpital Français pendant l'épidémie : ces injections donnent une immunité d'environ 4 mois contre la peste. Nous n'aurions pas eu à enregistrer un décès dû à la peste bubonique dans la famille d'un des membres du personnel indigène, si ce personnel dès l'apparition de l'épidémie venait lui même et amenait les personnes de son entourage recevoir une dose de serum préventif : cette inoculation est peu douloureuse et faite dans des conditions d'asepsie convenables ne provoque ni réaction inflammatoire notable ni abcès. Sur plus de 700 inoculations pratiquées cette année nous...
n'avons en effet constaté qu'un cas ou dela pympangite s'est déclarée et ne fut pas suivi d'abcès.

Dans ces conditions il serait à souhaiter qu'au moins le personnel indigène, appelé par ses fonctions à manipuler dans les entrepôts, des marchandises qui pourraient être souillées, on aller à bord surveiller des marchandises embarquées ou débarquées soit obligé d'être, dès qu'un cas sera signalé, soumis à l'inoculation d'une dose de lymphe serum de Haffkine dont l'emploi si bienfaïsent est devenu courant dans les Indes anglaises pour protéger contre les épidémies de peste les personnes qui s'y soumettent.

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**EPULIS OF THE LOWER JAW.**

By W. E. Plummer, M.D., Wenchow.

The patient is a youth aged 16. **History:**—The tumour was first noticed four years since and has gradually enlarged. The patient thinks it started in the cavity of a tooth which had fallen out. The swelling has never bled.

**Condition on admission:**—The right side of the face is swollen as shown in photo A. When the mouth is open, as in photo B, a swelling is seen which occupies the greater part of the mouth and pushes the tongue over to the left side.

The swelling is entirely covered with mucous membrane and no ulcerated places can be seen, the swelling is deeply indented where it comes in contact with the teeth on the right side of the upper jaw. The tongue can be protruded as shown in photo B. The lower jaw is expanded round the lower and outer side of the tumour. On palpation the swelling is found to be hard, moveable (i.e., not bound down as a malignant growth would be) extending forward to the symphysis and backwards to within half an inch of the angle of the lower jaw.

**Operation:**—A preliminary tracheotomy was performed for convenience in giving the anaesthetic and the usual incision made for removing the lower jaw, the bone was divided behind the second molar tooth and through the socket of the canine tooth which had been first extracted.

A piece of steel knitting needle was inserted between the fragments to keep them in position and left in situ.

**Subsequent progress:**—After the second day the patient was free from pain and eating heartily. The wound, which at first was completely united, broke down at one spot during the second week and was discharging a small quantity of pus up to the time when photos C and D were taken; the writer wonders if the knitting needle is going to be a source of trouble and delay the healing of the wound. Photos C and D were taken 17 days after the operation, on which day he went out saying he had family affairs which must be attended to. The small photo shows the tumour after removal; in the middle can be seen the first bicuspid tooth still adherent to the lower jaw which is just beneath; above in the centre the groove made by the pressure of the teeth of the upper jaw can be detected.
Epulis of the Lower Jaw.
The China Medical Journal.

Vol. XXIV. JULY, 1910. No. 4.

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.

Editorials.

INTERNATIONAL HYGIENE EXHIBITION.

We have recently received the very interesting prospectus and program of the International Hygiene Exhibition to be held in Dresden, Saxony, in 1911, date of opening not yet settled, together with a special invitation for the society to participate in the exhibit.

The program is very interesting, and so inclusive that it gives promise of being a very complete thing, which is characteristic of most German undertakings.

As stated in the preface to the program it is twenty-five years since the last general hygiene exhibit was organized under German auspices; since which time the science has progressed by leaps and bounds until to-day it has, perhaps, the greatest future before it of any department of medical science.

The exhibit will be divided into twelve general groups and five special groups with sub-divisions under each and an historical group. The grouping in part is as follows: I. Air, Light, Soil, and Water; II. Settlement and Dwelling; III. Nutrition and Food-stuffs; IV. Clothing and Care of the Body; V. Profession and Trades; VI. Infective Diseases; VII. Care of the Sick and Lifesaving; VIII. Children and Adolescents; IX. Traffic; X. Military; XI. Hygiene of the Tropics; XII. Statistics. Special Groups: Tuberculosis, Alcoholism, Venereal Disease, Cancer, Diseases of the Teeth. Historical Group.
The exhibit will indeed be well worth seeing, and it is a great pity that the distance and lack of time on the part of our over-worked brethren will probably prevent any participation in the exhibit by the C. M. M. A. as an organization.

THE SILVER ANNIVERSARY OF THE MARGARET WILLIAMSON HOSPITAL, SHANGHAI.

Anniversaries may be either joyful or mournful occasions, but when it comes to celebrating the fact that a hospital has a quarter of a century of honored and valuable service to its credit in this benighted country, has saved, no one knows, how many lives, and has held aloft and kept burning the beacon of advanced practice and sound theory in its chosen field, there can be no doubt about the nature of its celebrations. The day was celebrated with all usual splendors of an international character. Hosts of Chinese friends, former patients and descendants, and a few of the older foreign friends of the hospital were there; and there was a band and the inevitable speeches and refreshments and rejoicing, and gifts to the new maternity building which has just been completed. One of the interesting features of the day was the presence of as many as possible of the actual sons and daughters of the hospital, who were appropriately tagged. At number 185 the tags were used up, but it is estimated that there were at least two hundred of these bona fide descendants present.

To Dr. Reifsnyder and her efficient and agreeable colleagues—Drs. Garner and Newell and Nurse Miller—the Journal, with the whole body of the C. M. M. A., extends its heartfelt congratulations and best wishes for many years of health and service.

We regret that we published in our last issue a letter from Dr. Clark, in which he wrote disparagingly of the Customs medical man at Teng Yueh, Yunnan.

As far as we know, his remarks were quite uncalled for and should never have been printed in our pages. We hereby own our mistake and unreservedly express our regret.

With regard to the point in question one who knows writes: "'Dr.' Wihal Chand in all official communications styles himself
and is known as H. A. Wihal Chand, i.e., the rank he has and always gets through India. The hospital assistant is a distinct type of official in the Indian government. I have known many of them and have had them serving under me in India and Africa for years, and have invariably found them a reliable and intelligent type of man. They belong to the Indian Subordinate Medical Service, and have to undergo five years' training in a medical school before they are accepted for service. Most of them serve in the army, others are sent to outlying districts where there are no medical officers, and some get seconded for service abroad. They are, by no means, low caste.''

The statement of the finances of the Publication Committee, published in this issue, is encouraging, and gives the Association a new insight into the work being done by some of its members.

A copy of Osler's Practice, translated by Dr. Cousland and printed by the Fukuin Printing Co. of Yokohama, has just been received, and the style and finish of the book are most admirable. We have not had time to get any statement of its subject matter from any of our professional sinologues, so any actual review of the book must be deferred. As a working tool in the hand of the teacher engaged in shedding the light of rational medicine to the Chinese in their own language such a work cannot fail to be most helpful. The Journal sincerely congratulates Dr. Cousland on the completion of his long task and hopes that he may return in the fall to his most valuable labors for the Publication Committee with renewed strength and vigor.

A recent letter to Dr. Jefferys from Dr. O. L. Kilborn, of the Canadian Methodist Mission in West China, calls attention to the fact that the authorship of an article entitled "A Symposium on Methods of Raising Money amongst Chinese for Medical Work," is not acknowledged. Dr. Jefferys writes me that the paper was unsigned, and he did not notice it until too late to write to Szechuan for information as to the author's name. Dr. Kilborn states that the author is Dr. C. W. Service. We would extend apologies for the unavoidable omission of his name. We never intentionally omit to credit the authorship of articles, and we would urge upon all contributors the importance of signing their names and titles to papers.
### Financial Statement

of the Publication Committee of the China Medical Missionary Association in account with the Presbyterian Press and Dr. Cousland, from January, 1909, to June, 1910.

#### Receipts.

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<tr>
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| Total | | £25,282.76 |
1909.

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<td>Shanghai to Kobe</td>
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<td>Teacher “Osler”</td>
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<td>Reports and Circulars</td>
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<td>Stamps, 5.0; Telegram, 2.00</td>
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<td>May.</td>
<td>Canton Medical Missionary Society, ½ profits “Obstetrics”</td>
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<td>Printing Kerr’s Principles and Practice of Medicine</td>
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<td>Freight on paper for Surgery</td>
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<td>Nov.</td>
<td>Printing and Illustrating “Military Hygiene”</td>
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Dec.  | Canton Medical Missionary Society, ½ profits “Obstetrics” | ... | ... | ... | ... | ... | ... | 200.00 |

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<td>Dr. Ingram for pundit’s travelling expenses</td>
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<td>Cliches for Heath’s Anatomy</td>
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<td></td>
<td>Books returned</td>
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<td>Anatomy Blocks—Short Gray</td>
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<td>Freight and landing charges</td>
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<td>Printing 2nd edition Hare’s Therapeutics</td>
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<td></td>
<td>Surgery pundits</td>
</tr>
</tbody>
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**Balance** | ... | ... | ... | ... | ... | ... | ... | **$17,698.05**

**Notes:**

- Yen 4,644.73 = $5,490.97
- Transferred from Shanghai
Included in the above statement is the Wellcome Fund, which stands as follows:

**Wellcome Fund**

**In England.**

<table>
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<th>To cash</th>
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<td>Electros and half tones</td>
<td>£46.13.0</td>
<td>120 reams paper</td>
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<tr>
<td>Freight on do.</td>
<td>£6.02.10</td>
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<td><strong>£117.7.10</strong></td>
<td></td>
<td><strong>£117.7.10</strong></td>
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**In China and Japan.**

| Balance in hand, January, 1909 | £1,977.96 |
| Sales of Therapeutics, less discount | £1,889.89 |
| Sales of Lexicon, less discount | 755.13 |
| Interest | 103.83 |
| **Total** | **£4,726.81** |

**Receipts.**

**Expenditures.**

| Therapeutics: | |
| Paper for second edition | Yen 400.00 |
| Printing second edition | 500.00 |
| **£970.00** |

| Lexicon, binding | 76.00 |

| Surgery: | |
| Pundits | £360.00 |
| Landing charges, 0.81; Freight, 13.40 | 14.21 |
| Printing 2,000 copies | Yen 264.00 |
| Halftones and woodcuts | 43.50 |
| Binding 300 | 30.00 |
| Freight from Japan-China | 11.01 |
| Landing charges on paper | 36.62 |
| Insurance on same | 23.63 |
| Duty on paper | 62.20 |
| Duty on blocks | 108.67 |
| Transferring charges | 23.36 |
| **Yen 602.99 = £709.40** | **£1,083.61** |

**Balance** | 2,597.20 |

**Note.**—This includes practically all grants and donations for two years and expenses for eighteen months only. There are five books now printing, and several others will soon go to press, so that the apparent balance of £7,584.71 will soon be exhausted.
RESEARCH COMMITTEE.—LETTER FROM DR. MAXWELL.

TAinan, Formosa, June 6th, 1910.

Dear Fellow-workers:—You have done me the great honour of appointing me first “Special Commissioner of Research” in pursuance of the plan determined on by the Hankow general meeting. I wish to take this opportunity of thanking you most-heartily for this honour and promising to humbly do my best to be, to some extent at least, worthy of it. I need not, however, remind you that the poorest of commissioners will be successful and the best of them would be unsuccessful according as he is supported or not by the individual members of the Association. I humbly beg therefore that you will at least give me a good chance of showing myself worthy of the trust you have confided in me. I would ask that first of all without delay the secretary or pathologist of each local branch will communicate with me on the question of the work that his branch proposes to take up in connection with research. Also that as many individual members as possible not already attached to local branches will do the same. This will allow me to know on what lines our work is likely to proceed best. The general meeting decided the main lines of research as follows:—

1. To continue the intestinal parasite research.
2. To investigate any local disease or diseases calling for special attention.
3. To commence the investigation of blood parasites and other blood pathological conditions.
4. The commissioner is left free to suggest any other lines of investigation that may seem desirable.

To deal now with these points seriatim, and we shall begin with the last. One of our members has written me on a subject the importance of which I must confess had never occurred to me. It is, however, of such importance that I wish to refer to it at once. Dr. Whyte, of Swatow, in a letter to the editor, which has already been or will be published with this, calls attention to the marked difference in the physiological standards of the Chinese as compared with Western races. Dr. Whyte himself carried out a most important investigation on the question of the normal urea excretion in the urine of Chinese* which also confirmed the same difference in standards. It is absolutely essential for reliable pathological standards with which to compare the supposed diseased condition—standards of blood, urine, gastric secretion, etc., etc. Who will volunteer to work these subjects out?

* C. M. J., 1908, p. 35.
Will not each local branch try and appoint one of their number to work at this subject?

*Intestinal Parasite Research.*—To deal with this part of the question geographically. We have had no reports whatever from Honan, Kansu, Shansi, Yunnan, Kiangsi, and Kweichow provinces. Reports of the presence or absence of Ankylostome infection from the whole of North China are unsatisfactory. Will our brethren and sisters in the areas here named please try to remove this blot from our first results.

Then in relation to the varieties of worms. Will all investigators kindly pay more attention to the question of the relative frequency of Necator Americanus and Ankylostomum Duodenale.

Further, over the whole of China our knowledge of the presence and varieties of tape-worms is absolutely elementary; there should be no difficulty during the triennium in quite clearing up this question.

Our knowledge of the distribution of Clonorchis Sinensis is still very meagre, and it would be well where the incidence is common for some of our members to devote themselves to settling the point of the presence or absence of a pernicious form of this worm.

Its intermediate host too, as well as that of the Fasciolopsis type, urgently calls for investigation. The division of this latter worm into two or more types ought to be settled before our next meeting. Will workers in the areas where infection is common devote some attention to this matter?

The intermediate host, too, of Schistosomum Japonicum is still waiting for one of our members to discover.

*Investigation of Local Diseases.*—This is a subject the importance of which can hardly be overestimated. Until the local fevers of China have been worked out, the differentiation of febrile diseases is practically impossible. Another local investigation, which though probably not attractive to many, may be very much so to some of our scholars, and which should produce some very interesting results, is the investigation into the Chinese documentary accounts of the epidemics of China preserved in various provincial centres. Some of these documents go back many centuries, and though of course the pathology given is often absurd the history of the spread of disease thus obtained may be very valuable.

*Investigation of Blood Parasites and Blood Pathological Conditions.*—The various fevers—Kala-azar, Ponos, the blood conditions of Ankylostomiasis, the Anaemias and Splenomegaly—all come under this head and our knowledge of all, in China, is either absent or very elementary.
It is plain therefore that the programme before us is a very large one. This has the disadvantage that there is danger of results being too vague; it has, however, the great advantage that no member of the Association should find any difficulty in helping with some or other part of the investigation here sketched out. And the sooner to work the more satisfactory our final results.

James L. Maxwell,
Commissioner of Research.

EXECUTIVE COMMITTEE.

Meeting, 5th March.—Present: Drs. Boone, Stuart, Cousland, Davenport, and Lincoln.

Business: “Henry S. Wellcome Trust Deed.”—The deed was read through and discussed. It was agreed that the C. M. M. A. president, vice-president and treasurer, together with two members of the Publication Committee, should act as trustees for the C. M. M. A. Dr. Stuart and Dr. Neal were elected as the two members from the Publication Committee. With a few minors alterations, the deed was accepted as a whole.

Dr. Cousland was authorized to correspond with Mr. Wellcome and requested to report later.

Meeting, 22nd March.—Present: Drs. Stuart, Boone, Lincoln, and Davenport.

Business: To consider a letter from Dr. Eubank asking for data re Medical education to lay before the Laymen’s Conference at Chicago, to be held in May.

An answer was drafted endorsing resolutions of 1907 and 1910 conferences re medical education and publication. The present status and needs of the five centres were set forth. Emphasis was laid on the need for sufficiency in funds and plant and on the need for prompt help. A letter from an advertising firm, requesting sole rights for ads. in U. S. A. and Canada, was read, and dealt with in accepting the offer for all new “ads.,” but not touching present ones.

Meeting, 21st June.—Present: Drs. Stuart, Lincoln, and Davenport.

Business (1). Finance.—Funds in hand to date as follows:

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<tr>
<td>On fixed deposit in bank for 6 months</td>
<td>$4,900</td>
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<tr>
<td>In hands of Presbyterian Mission Press</td>
<td>$3,749</td>
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<td>Cash in bank</td>
<td>$727</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$9,376</strong></td>
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Seeing there are five books now printing and others soon to go
to press, this apparent balance will soon be used up.

The fixed deposit receipt is to be kept in L. M. S. safe. The funds
of the Wellcome Fund not to be kept apart from the general. Detailed

Letters from Dr. Cousland emphasizing need for proper audit, im-
proved method of keeping the accounts, growing amount of work, etc.,
were read and considered.

(2). The question of how to deal with the illustration "blocks"
used in past numbers of the Journal was raised by a letter from Dr.
Jefferys, offering to purchase those which he had selected for illustra-
tions for his book.

Resolved, That seeing that all blocks illustrating articles, etc., in the
Journal are paid for by the Association, it is the opinion of the committee that
they belong to the Association and should be kept as the property of the Associa-
tion. That they may be available for the use of authors, but that the formal
consent of the Association should be obtained before such use. Further, in
return for such use, authors are requested to help on the Publication Fund of the
Association to any extent they may see fit.

The secretary was instructed to write to Dr. Jefferys thanking him
for his generous offer.

It was further suggested that a sub-committee should later on deal
with the "blocks" now in the hands of the Press.

(3). Agreed, as suggested in a former letter of Dr. Jefferys, that
the Journal should be supplied to nurses, members of the nurses'
association, at the rate of $3 per annum.

(4). Owing to the fact the Drs. Boone and Jefferys are both
absent on furlough, it was agreed to cooperate two other members to
serve in their place. Dr. Venable and Dr. Barlow were nominated.

(5). Minutes of Executive Committee to be briefly reported in
the Journal.
Medical and Surgical Progress.—Tropical Diseases.

Tropical Diseases.

Under the charge of J. Preston Maxwell, M.B., F.R.C.S.

Cholera. Indian Medical Gazette, November, 1909. Transactions of the Bombay Medical Congress, 1909.—In both of these there is an important article by Major Leonard Rogers. He deals with the prevalent method of infusion in cholera and advocated three new methods of procedure:

1. The replacing of the normal saline usually employed by a hypertonic solution of 120 grains of sodium chloride and 3 grains of calcium chloride to the pint. Four pints to be infused.

2. The use of rapid intraperitoneal injections of the same fluid. This procedure is easily carried out; a small incision being made just below the umbilicus and a small silver plated steel tube, sharpened like a cask borer and provided with a flange to prevent its slipping into the abdominal cavity, pushed in. The injection of 3-4 pints takes about 10 minutes. The wound is sealed with a stitch and collodion and an abdominal binder put on.

3. The injection of adrenalin and digitalin hypodermically when uraemia threatens.

Indian Medical Gazette, October, 1909.—A report is here given of the cholera outbreak amongst the nurses in the Presidency General Hospital, Calcutta. The important point about the article is the proof given of the conveyance of the disease by apparently healthy individuals, thus confirming the statement of Prof. Koch that in the epidemics in Hamburg in 1892 and 1893 there were those whose forces were apparently normal yet contained virulent cholera vibrios; and the statement in the Bulletin de la Société de Pathologie Exotique (June, 1909) re the outbreak at St. Petersburg. For 100 subjects showing the classical features of cholera there were 20 unknown carriers of cholera vibrios. Some of these afterwards fell ill of the disease, but about one-half had no symptoms of disease whatever. It is not yet determined how long a person may continue to be a "vibrio-carrier."


Williams reports hopefully on treatment by this method. He states that the general health of the patients has improved, that with one exception the lepromata and ulcers have improved.

Davidson, whilst not reporting any remarkable success, reports improvement. Apparently the treatment is well worth an extended trial, but the process is a lengthy one, and very rapid improvement must not be expected.

Turkhead reports the result of two years' experiment with "X-rays" at the Matunga (Bombay) Asylum. A certain amount of improvement took place, but the results were not thought to be sufficiently favourable to cause the continuation of this form of treatment.

Elephantiasis of the Legs.

—Some time ago it was urged by several writers that cases should be treated by decortication, i.e., removal of the entire skin of the affected leg and extensive skin grafting. Gabbett, Transactions of the Bombay Congress, 1909, re-
ports the final result of four cases operated on by Captain Browne. "In only one case, after the lapse of three years, was the patient at all satisfied with the result. In the other three the operation was a failure, and one patient has since had his leg amputated at his own request, because he could not stand the stink from it. In the first place the gradual contraction of the enormous scar binds down all the muscles and tendons and makes the leg very stiff and useless. Secondly there is a tendency to recurrence. The badly nourished skin thickens, cracks and ulcerates, and if neglected, a very foul intractable dematitus ensues.

During the periodical attacks of lymphangitis the leg tries to swell, but being bound down by scar tissue cannot do so and the tension causes great pain.

If the operation is ever performed, those cases should be selected which do not suffer from recurrent lymphangitis.

It is wonderful what useful and active members, even the largest elephant legs, may be in spite of their weight, and from the few after-results I have seen I do not consider that their usefulness is likely to be increased by operation while usually it is greatly diminished. The operation is therefore rarely justifiable."

**Infection with Lucilia Macellaria.** Indian Medical Gazette October and November, 1909.—Cameron and Patterson describe cases of infection with this parasite. The cases narrated by the former are examples of nasal myiasis, and the writer discovered that a mixture of chloroform 1 part and rectified spirits 2 parts, injected into the nostril with the head held down, proved very satisfactory, killing and causing the ejection of the parasites.

In the case narrated by the latter the disease probably began in the nose, but spread to the orbital cavity and face and the patient died of exhaustion with a large portion of the face and both eyes destroyed.

**The Relation of House Flies to the Spread of Disease.**—The above is the title of a paper by Skinner in the Transactions of the American Society of Tropical Medicine for 1909. The paper consists of a good description of the common house fly and a statement of the rôle played by this insect in the carriage of disease. In the discussion which followed Dr. Dock mentioned his own success in fly destruction with a 10 per cent. solution of formalin mixed with sugar and placed in plates about the room. Dr. Vireeck stated that a 4 per cent. solution was quite strong enough.

**Mild Uncinaria Infections.** Transactions of the American Society of Tropical Medicine, 1909.—Chamberlain and Bass have papers on this subject; the former entering carefully into the per cent. of haemoglobin and the blood appearances in these light infections, the relation of these infections to questions of physical development, and emphasizing the necessity of the treatment of these light infections of the disease is to be stamped out.

The latter gives his method for obtaining the ova when only present in scanty numbers in the force based upon the s. g. of these eggs. Briefly the forces are mixed with 9 parts of water and strained through gauze, then centrifugalized; the supernatant fluid being poured away. Ten seconds with a centrifuge running 3,500 revolutions a minute is approximately enough. Now the precipitate is washed with calcium chloride solution of s. g. 1020. Remove the top fluid which
contains the ova, dilute to s.g. 1.050 and again centrifugalize, and the ova will be collected in the precipitate and practically free from faecal matter.

A Study of the Leucocytes in Tropical Malarial Infections.—Talbot (Transactions of the American Society of Tropical Medicine, 1909) has an interesting paper on this subject. His blood findings were those of a marked secondary anaemia, associated with leucopenia, haemoglobin 30 per cent.—70 per cent. The summary of the white blood count was as follows:

<table>
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<th>20-30%</th>
<th>15%</th>
<th>39-52%</th>
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<tbody>
<tr>
<td>Large lymphocytes</td>
<td>4-8</td>
<td>15</td>
<td>9.2</td>
</tr>
<tr>
<td>Neutrophiles (polymorphonuclear)</td>
<td>62-70</td>
<td>67</td>
<td>48.</td>
</tr>
<tr>
<td>Eosinophiles</td>
<td>2</td>
<td>1.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Basophiles</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In the writer's cases the small lymphocytes were markedly increased, and the parasites found were erratic in form, and the writer is not clear that the ordinary blood picture associated with malarial fever is correct for some forms of aestivo autumnal fever.

Gynaecological Notes.

Under the charge of Kate C. Woodhull, M.D.


The treatment of prolapsus uteri, to be successful, must be based on a proper knowledge of the structures which hold up this organ in health. For many years it was thought that the pelvic floor and the intra-abdominal pressure were the chief factors in supporting the uterus. Clinical observation and a slight knowledge of physics are sufficient to upset these views.

With regard to the pelvic floor we constantly come across cases of ruptured perineum without any prolapse, showing that something else besides the pelvic floor is holding up the uterus.

I recently operated on a patient at the Chelsea Hospital for Women with a complete tear of the perineum, extending into the rectum, that had existed for fifteen years without any prolapse following.

Again in virgins, with an intact perineum, the uterus comes down not infrequently, showing that the perineum does not hold it up.

Thirdly a still further proof, if one is needed, is afforded by the results obtained from repair of the torn perineum. However well this may be done, it fails to cure the prolapse in the majority of cases.

Does the intra-abdominal pressure help to hold up the uterus? If the abdominal cavity were a vacuum, something might be said for it, but even then the pressure of the atmosphere on the abdominal wall, without any counter pressure from within, would come to something like half a ton.

As a matter of fact there is no vacuum, because the abdominal cavity communicates with the external air through the Fallopian tubes. As the pressure of the atmosphere is equal in all directions, the pressure from this cause is the same above the uterus as it is below.

Having arrived, then, at the conclusion that there must be some other important factor in sustaining the uterus, I made a farther study, fifteen years ago, of the anatomy of the uterine ligaments.
The China Medical Journal.

The credit of discerning that the uterus is mainly held up by the connective tissues running from the side of the pelvis with the vessels to the side of the uterus is due to the late Dr. Henry Savage. This is fully stated in his book on the Surgical Anatomy of the Female Pelvic Organs, published in 1882.

That Dr. Savage's observations were correct seemed extremely probable, because they at once explained the clinical facts observed in connection with prolapse, viz., that the uterus would often keep up when the support of the pelvic floor is lost by rupture, and that the uterus sometimes comes down when the pelvic floor is intact and giving all the support it is capable of. In the former case the uterus is held up because the ligaments are strong, and, in the latter case, the uterus comes down because the ligaments are weak. An attempt was made to grapple with the condition by doing ventral fixation.

If it is allowed that in health the uterus is chiefly kept up by the ligaments already described, the ideal treatment would be something that would strengthen these ligaments rather than creating a new one by attachment to the abdominal wall. It occurred to me that this might be done by irritating the cellular tissue with quinine so as to produce an effusion of lymph that would form new connective tissue.

In all probability effusion would occur naturally, and repair follow, if the uterus were suddenly and violently dislocated, just as effusion and repair follow after sudden dislocation of an ordinary joint. But as the uterus comes down very slowly, there is never, at any time, sufficient stimulus to produce an effusion of lymph.

My friend, Dr. Aikman, told me that when he had injected sulphate of quinine into the subcutaneous tissue of the arm for malaria it produced effusion and caused a small swelling that remained for some months. This seemed an ideal agent to use, because it is a strong antiseptic and is non-poisonous.

The first patient was a woman, aged sixty-one, with a procidentia of six years' standing. I explained to her that she would be the first to undergo a new operation, but that I had considered the question for some years in all its aspects and did not think there could be much risk. Her answer was, that, as she had been to several hospitals and no one had cured her, she was ready to undergo any operation.

The solution first tried in 1897 was 1—4. This produced a slight suppuration; the quantity injected was thirty drops on each side. As my object was to produce lymph, and not pus, the solution was altered to 1—5, and to this I have adhered ever since. This first patient did very well, and the uterus was held up. The discharge of pus amounted to about two drachms.

My candid friends tried to dissuade me from going on, and predicted all sorts of dreadful catastrophes that would follow. One of the most common arguments used was that inflammation would be set up which could not be controlled. As a matter of fact the reaction set up by any irritant or injury is in proportion to the amount of that irritant, provided that no microbe infection occurs.

Shortly after the operation on the first patient, I treated a case of cancer of the cervix, beyond excision, with injections of methylene blue, which was then being advocated on the Continent. An intense reaction was produced in the patient with cancer and profuse suppuration, but in a few days it
subsided. After this experiment with methylene blue I felt fairly certain that my injections of quinine would do no harm, as I had no intention of setting up inflammation.

After injection there should not be any rise of temperature, nor does it often occur. Out of 150 cases I have had only three cases of suppuration, and they occurred in women exhausted by large families and in a low condition. I am happy to say they were none the worse for it, and the uterus was well held up. The best time to operate is a week after menstruation is over.

Before the operation is performed, the bowels are thoroughly cleared out and the vagina well douché with 1:2000 perchloride of mercury. An anesthetic is advised, although the operation only takes a few minutes. The patient is placed in the lithotomy position. The next step is to pass the bladder sound and ascertain to what extent the bladder falls down on each side of the uterus. A Sim's speculum is then passed to hold down the posterior vaginal wall and a retractor to hold up the anterior vaginal wall. The retractor should be fairly wide to draw the bladder well up and out of the way. A straight sound is then passed into the uterus and held horizontally by the left hand of the operator, while the syringe holding the solution is held in the right hand. The injection is then made on each side of the uterus through the vaginal wall at a distance of three-quarters of an inch from the cervix and a little below the level of the external os. The needle is one inch long. If the cervix is much enlarged, as is often the case in prolapus, the point of injection will be nearer to the cervix. The aim of the operator should be to insert the needle exactly half way between the position of normal cervix and the pelvic wall. Then the nearest portion of the uterine artery and veins and the ureter lie to the right of the needle and above it. Another point is that in the outer half of the broad ligament in this situation there are no veins of importance. Luschka's illustration of this is most misleading, and must have been arrived at by forcible dilation of the veins on the cadaver. In doing other operations on the pelvis I have constantly examined the cellular tissue and found no vessels of importance in it.

When operating on cases of chronic procædenzia, it is advisable to inject somewhat lower on account of the tendency of the bladder to pouch down on each side of the cervix. After the needle is in the cellular tissue, the point should be slightly rotated, so as to ascertain if it is free. Should the point have passed into any other structure, its movement will be restricted, as it would be held at two points.

The syringe must be efficient and its joints watertight; otherwise the solution may simply ooze into the vagina. That which I use has a thin long straight nozzle, with the needle fitted to the end; the object of this is to prevent the light being excluded from the vagina by the body of the syringe and to enable the operator to see clearly the point of the injection.

The needle is very apt to be corroded by the acid in the solution, and should therefore be tested before use and thoroughly washed out after in warm water. After the injection is made, the operator proceeds to antevert the uterus as much as possible. A cup-and-stem india-rubber vaginal pessary is then inserted and secured by tapes to a band around the waist.

It is necessary to see that this pessary is well secured in position, so as to keep the uterus up for the
first three days while the effusion is forming. After three days it may be taken out. If kept in longer it does no further good, and may do harm from pressure. There is no pain, after the operation, as a rule; in fact many patients say they would hardly know they had been operated on. There should be no rise of temperature. This shows that there is no inflammation and that the process is a reparative one. When a rise does occur, it is usually at the end of 6 to 7 days. The patient is instructed to lie on her face or side as much as possible, so as to throw the uterus forward as much as possible and keep it in a good position. The bowels should be kept open every day. An accumulation in the rectum in near proximity to the effusion is not desirable. On the other hand free purging must be avoided, as it would tend to restrain the formation of lymph. Occasionally there is a slight cystitis. This generally passes off in a few days, if it occurs at all. The catheter usually has to be passed for the first few days or longer.

After injecting some 24 to 30 grains, one might expect some symptoms of cinchonism. This, however, is rare, and is explained no doubt by the precipitation of the quinine after the injection. This precipitation very likely favours the formation of the fibrous strands, which can be felt by most patients at the end of two or three months.

The exact solution consists of the ordinary sulphate of quinine, dissolved in 30 m. of dilute sulphuric acid and 30 m. of distilled water. It should be freshly made for each patient, because, after a time, and especially in cold weather, some deposit will take place. The stopper of the bottle is very liable to stick; the slight precipitation around acting like a cement. The amount of solution injected will depend on the case. The worse the case the greater the amount required. The maximum I have used has been 80 minims on each side, and the minimum effective doses for early cases of prolapse is about 40 minims. As the space on the left side is encroached on by the rectum, I usually inject 10 minims less than on the right. The quantity to inject will also depend on other factors; one of these being the general condition of the patient.

Speaking broadly one may say that the healthy, florid, country woman will form more effusion than the pale, enemic, town dweller, if the same dose is given to each; the latter hence requires the larger injection.

The duration and extent of the prolapse must be taken into account. It stands to reason that a patient who has had complete procedentia for ten years will require more effusion to hold up the uterus than one who is only in the first stage and can get about with the aid of a ring pessary.

For cases of chronic procedentia, such as one comes across in hospital practice, it may be necessary to do more than one injection. An interval of at least fourteen days should elapse before the second injection. The quantity injected should also be less by one-third, because the patients react more.

In one instance the procedentia recurred when the pessary was removed after the first and second injection, but a third injection held up the uterus. When a temperature does occur it is almost always after a second injection, so I try to avoid it if possible. The same principle also applies to the amount of rest required after the operation so as to secure organization of the effusion into fibrous tissue and to prevent this being stretched until
it is strong enough to stand the strain.

For a case of prolapse in the first stage a week to ten days in bed may be sufficient, followed by another ten days on the sofa. If a ring pessary is then inserted in order to take the weight off the uterus, the patient can go about the house and out for drives, but must still avoid anything that throws much strain on the uterus, such as lifting weights, etc. At the end of three months the ligaments are usually strong enough to do without the ring, but the full strength of the new fibrous tissue is not reached under six months.

If the perineum is ruptured, it should be repaired. Although I do not believe that the pelvic floor in any way keeps up the uterus, it stops prolapse of the vaginal walls and prevents them from dragging on the uterus, bladder, and rectum. Repair of the perineum, therefore, adds much to the comfort of the patient and also helps the ligaments.

For minor cases of prolapse the two operations can be done at one sitting. The ligaments are first injected, and then a perineoraphy is done. As the use of a pessary, under these conditions is impossible, the patient’s hips are kept raised a little while she is in bed for the first three days, so as to cause gravitation of the uterus to a high point in the pelvis.

I do not advise the two operations together on cases of procidentia, because vomiting after the anesthetic might force the uterus right out, unless kept in place by a pessary. It might then be fixed too low down, or the pressure on the perineum might prevent union of the wound. . . .

The results are, on the whole, very good:—Taking all the easiest cases, and also the most difficult, the latter forming by far the larger proportion, and including a great many cases of procidentia, I find that in 75 per cent. the uterus has kept up permanently; 20 per cent. were greatly improved and 5 per cent. failed. Taking only those cases of early prolapse, such as one usually meets in private practice, the percentage of successes is as high as 98. My first case was in 1897, so that I have had eleven years of experience. Up to now I have done over 150 cases. . . .

One great advantage of this operation is that it does not in any way interfere with pregnancy. Taking all the patients under thirty-five years of age, nearly 40 per cent. of them have had children, and also without difficulty. In conclusion, I may say that the operation is fairly simple and takes only a few minutes to perform. It appears to be free from risk if carried out properly; it causes no pain afterwards; it is more effective for its purpose than any other treatment.—The Practitioner, March, 1909.
IN MEMORIAM.—ISABEL HAMPTON ROBB.

Isabel Hampton Robb, known and loved by hundreds of nurses, known by reputation and honored all over the nursing world, died in Cleveland, Ohio, on Friday afternoon, April 15th, in a most frightful accident. She was walking across Euclid Avenue, talking with a friend, when an automobile approached them at such speed that Mrs. Robb jumped back to avoid it, and in so doing stepped upon the street car tracks and was crushed between two cars which came upon her so rapidly from opposite directions that neither could she escape, nor could the brakes which were instantly applied avert the crash. She was probably instantly killed, though her body, after being rescued, was taken to St. Luke's Hospital in an ambulance in a vain effort to obtain help. Funeral services were held in Cleveland on the following Monday, and the burial was in Canada, her early home.

The above notice of Mrs. Robb's death is taken from *The American Journal of Nursing*. The news will come as a great shock to many who have known Mrs. Robb either personally, or through her valuable book, or through her work for nurses. In her profession she has been a leader in the truest sense of the word; inspiring many to a highest sense of the dignity and possibilities of their service; "going before" us into so many forms of nursing interest and activity, forming and transforming through her rich personality. We owe her an unspeakable debt of loyal gratitude. I am sure the annual meeting will want to record its sympathy with her family and with all nurses and its appreciation of her life and work.

The Constitution of the Nurses' Association has been put into Chinese, and is now ready for distribution. Copies will be sent to all whose addresses we have, and upon application, to all desiring them.

In China this has been a silent time for nurses. At least nothing has been sent to your editorial secretary to edit.

Before the next number comes out we will have had our annual meeting in Kuling. We hope for a good attendance.

But two interesting letters have come: one from Seoul, Korea, one from India. Miss E. L. Shields, of the Korea Mission of the Presbyterian Church in U. S. A., writes:

"We have organized an association for foreign graduates in Korea, but are not yet very well established. As yet there are only three young Korean women who have graduated from our Christian training school for nurses; these all from the M. E. hospital for women in Seoul. We hope we may have one, or possibly two or three of the pupils here graduate this year. One of our Korean doctors has just finished the translation of Miss Kimber's Anatomy and Physiology for Nurses."

Mrs. Etha Butcher Klosz (Johns Hopkins Hospital, 1901) writes from Akola Berar, C. P., India:

"Miss Palmer, of the *American Journal*, wrote to me that you had organized an association of nurses in China. I am writing to tell you of the new *Nursing Journal of India*, as you said you hoped to arrange exchanges with the 'home papers.' We're not exactly that, but we're sure you will be glad to include us."

Mrs. Klosz forwards the April and May copies of the *Nursing Journal of India*. I am sure we will be glad to arrange this exchange, and shall be glad to have some of the interesting notes in our next number. There are many similar conditions evidently, and we should be mutually helpful.
Saturday afternoon, June 4, was a gala day for the Margaret Williamson Hospital, of the Woman's Union Mission at the West Gate, Shanghai, on the occasion of its twenty-fifth anniversary. The beautiful lawn, with its trees and flowering shrubs, presented a gay appearance. At one end of the lawn a matsched had been erected to serve as a platform, and was decorated with plants and flowers and varicoloured silks, and the Stars and Stripes and Dragon Flag. In front of this were arranged rows of seats, above which extended long broad bands of red, purple, blue, green, and orange silk, while suspended on ropes were banners, pendants, and lanterns. The most interesting sight was the presence of five or six hundred women, and about two hundred babies, of all ages, from three weeks old and up. Each of these wore a badge, denoting that it owed allegiance to the hospital.

There was quite a number of noted Chinese and foreigners present; among others the Taotai's representative, Mr. Tso, Wu Tao-tai, and the Shanghai Magistrate, Mr. Dien. A Chinese band furnished music while the guests were assembling, and at intervals during the programme. A photograph of the gathering was taken, after which a song of welcome to each and all was rendered by the pupils of the Bridgman School, followed by a prayer by Pastor Day, of St. John's College, and the singing of a hymn by all present.

Dr. Reifsnyder—with whom Dr. Emily Garner has been associated in this hospital for the past seventeen years, and Dr. Mary Newell for the past five years—then addressed the audience. She said, among other things, that there were several reasons for thus gathering together. The first was to celebrate the opening of the hospital in 1886, for which Mrs. Margaret Williamson, of the United States, had been most especially interested. Dr. S. Wells Williams gave a ward, as did also the late Miss Sophia Stevens, of New Jersey. The second reason was the opening of the new maternity building, which is just finished, the principal promoter of which was Miss Stevens, of New Jersey, who gave more than half the funds required for this new building. Dr. Reifsnyder laid special emphasis on the good done by Mrs. Day, mother of Pastor Day, of St. John's College, who was with her when she opened the hospital twenty-five years ago. Mrs. Day feared neither heat nor cold, but devoted herself in every way to helping in the work, whether in preparing medicines, attending to the wants of the patients, or in teaching and preaching to them; her efforts were untiring. Eight hundred thousand patients have been treated in the hospital since its foundation. Last year there were 820 in-patients and 56,700 out-patients, and the physicians and their assistants had every reason to feel encouraged.

Everyone who took part in the programme had some intimate connexion with the hospital. Mrs. Chang, wife of the superintendent of the Shanghai Orphanage, sang Arthur Sullivan's "Love not the World" very sweetly, and this was followed by an item by the band. Pastor Day spoke of his mother's connexion with the hos-
pital, which he congratulated on its twenty-fifth anniversary. He then gave the causes of the success of the hospital. People in China think, he added, that those who are treated in charitable institutions must put up with anything, but this was not the case here, where the spirit of self sacrifice prevailed. The customs of China call for more hospitals for women, especially for hospitals whose object is, like this, to save souls.

Dr. Reifsnyder acknowledged with pleasure the generosity shown by the Chinese towards the hospital and made mention of the fact that while heretofore all the endowed beds bore foreign names, a bed had just been endowed by Mr. Chang Kwe-wo in memory of his late wife, who was a Miss Bau. Then followed an English recitation by little Miss Anna Crofoot; words of congratulation by a small Chinese girl, which were received with great applause; the son of Captain Ho exhorted his hearers to support the institution; and the son of Wang Wen-sz, pastor of the Mandarin Church, related his experience and told how he was specially helped in the hospital; a duet was sung by two small girls, "The Story of the Christ," and a song by two tiny girls, one of them blind through small-pox.

Mr. Day's son, of the third generation of Christians, gave the history of the hospital and contrasted it with the old amphitheatre; one was carried on in love and life was preserved; whereas in the other hate was the moving principle and life was destroyed. The bodies of thousands were cured in this hospital, and the souls of hundreds saved by faith.

The next item was a recitation by a little girl who was brought to the hospital and abandoned by her friends, a few years ago, in such a condition that her leg had to be amputated. Now she is a bright, happy, little schoolgirl.

The American Consul-General, Mr. A. P. Wilder, then addressed the audience with Mr. Tsao, of the Y. M. C. A., as interpreter.

"Mr. Tsao is an excellent speaker; he has a larger mouth than mine and two tongues. I have one of the most varied audiences—officials, doctors, women, babies—and this place has even a pet monkey which is now in the verandah listening to my speech. In this hospital they cure almost anything—toothache and worse aches—and if they cannot cure them, they will at least do them good. There is only one thing they do not help, and that is a man when he must make a speech and has stage-fright, so the only thing is to get this speech out of my bosom. This is the most interesting institution in Shanghai; it had over 56,000 patients last year and almost two hundred babies. I have four babies, and I am glad I have not two hundred. They have a saying in the United States that Chinese babies do not cry. When I carried my babies all night and they cried, I'd gladly have exchanged them for Chinese babies. I can see in all these faces before me that you realize the debt you owe the hospital. When we think of this little child whose leg was amputated here and so many other patients that have been cured, we are affected almost to tears, and I do not wonder you all love the hospital. A missionary told me of a riot, when the people, poor and hungry, went about wanting to smash something in their despair. They wished to destroy a hospital, but hundreds of people crowded round it to protect it, and said: 'You can't tear down this hospital unless you walk over our dead bodies.' Some told of an old mother whose life had been saved here, or a child healed, or a son born, and they stood as a guard until the people sneaked away, ashamed. A hospital has a place in the hearts of the people. Some persons think a hospital a sad place, with its sickness and death; there is doubtless much suffering. Even now there is someone dying in that building. But it is not a sad place, for here we have fine doctors to alleviate suffering and to bring into the homes of poverty a knowledge of sanitary conditions. It is heart-breaking to have a sick child, woman or son in the home, and men will give their lives for these loved ones, but they are ignorant. They may be wealthy, and may know all about the rice field, or the shop, but
they have no knowledge of the body. These doctors have studied in fine institutions at home, and it is a grand thing to have them in a Christian hospital with a Christian spirit. These women give their lives, not for money but for love for these people, which they get from Christ. It is the spirit of Jesus. My warmest sympathies are with this hospital, and it should be thoroughly equipped and well supported."

A duet was then sung by two girls, followed by a short address by Mrs. G. F. Fitch, of the Presbyterian Mission. The audience then rose and united in singing "God Save the Emperor," after which a tablet was presented to the hospital, the gift of several of its leading Chinese patrons. Refreshments were then served, and the function was concluded. The band and the decorations were the gifts of Chinese gentlemen interested in the hospital. — N.-C. Daily News.

Correspondence.

Lao-shih, June 11th, 1910.

DEAR MR. EDITOR: We have been using catgut prepared by Lord Lister's method and find it most satisfactory. I sent a specimen to Shanghai to be tested, and they state it to be strongly antiseptic. The chromic acid makes it very nice for tying knots, and of course delays absorption. In an end to end anastomosis of small intestine, I used catgut prepared in this way, taking it dry from a cupboard and soaking for a short period just before using in perchloride solution 1:1000. The result was quite satisfactory, and the man is now quite well. The method, published in a former B. M. J., is as follows:

Bottle No. 1.  Ac. chromic, gr. 7 (seven). Water, \( \frac{5}{3} \) (one).  
Bottle No. 2.  Corrosive sublimate, gr. 2 (two). Water, 55 (five).  
Bottle No. 3.  Acid sulphurosum.  

This last is simply made by beating charcoal powder and strong sulphuric acid in a bottle; let the fumes come out through a bent glass tube in the cork and dip into a bottle of water; the fumes can be seen bubbling up through the water, and in a short time, if you test this water, it will wash off an iodine stain in an instant; this is sulphurous acid. Now to use these three bottles.  

Of bottle No. 1: take 54 (four) M. 23 (twenty-three). To this add from bottle No. 3; the red of No. 1 turns to first blue, then green. When green appears add a little more of No. 1 till the blue has just come back. If necessary make up with water to 58 (eight) M. 47 (forty-seven).  

To this add from No. 2, i.e., the Hy. Cl.2 mixture, 55 (five) M. 52 (fifty-two).  

Of this mixture four ounces will suffice for 87 (eighty-seven) grains of raw catgut. Soak the raw catgut in this solution for 24 hours, then take it out and dry it on the stretch. I hung mine over a punkah hook and attached weights to it. In a day it is dry and feels like good tough whip cord. When wanted for an operation soak in some antiseptic so as to destroy any beasts on the surface; it doesn't soften or swell; it is hard and nice for tying.  

One other item of interest: We have been trying a new dressing
recommended by the Japanese, i.e., straw charcoal contained in linen or calico bags. To make the charcoal, burn straw, new or old does not matter; burn it in a Chinese oven, blocking up all the air entrances when it is well under way. After it has burnt out open and you find not a heap of ashes but black straw; this is antiseptic and absorbent. Soak little linen bags in perchloride, to which is added a little glycerine to prevent evaporation of the mercury. When they are dry fill moderately with the charcoal and fasten up. To use again, empty charcoal, wash and boil the bags and again soak in the antiseptic. This is a splendid dressing for compound fractures; magnificent for abscesses and even clean wounds. For carbuncles the soda in the ash is a bit irritating. One more thing; now that the egg hunt has come to a close could we be set on to Chinese fevers—to report charts and blood counts, organisms, etc.? I feel quite well up in the parasite work, thanks to the organized help, and should be very thankful to know a bit about the many fevers.

Yours sincerely,

E. F. WILLS.

HWAI-YUAN, January, 1910.

MY DEAR DOCTOR: I am writing to Shanghai to the architect of our newly opened hospital to ask him to send you copies of the plans of the building, which I should be glad to have you publish if you think they would be of interest or use to anyone. Dr. Macklin has written you of the opening of the new plant, which took place on December 9th-11th.

We have been in the new building for six weeks, having seen patients there for a little while before the formal opening. It is giving us the greatest possible satisfaction, and indeed it is almost like being in heaven after the years of bondage gone through in the old place.

Perhaps it is in place to tell of one or two features of the hospital that are giving especial satisfaction. The first is the acetylene outfit that lights the operating room, dispensary, sterilizing room, laboratory, dark-room, and drug room. It is a "fifty-light" outfit purchased in New York for $87.50 gold. The piping and fixtures brought the cost up to $212, which included tools for installing. Everything was very complete, and we did not experience an hour's delay by being short necessary articles. The Company made to our order a drop light for the operating table on the principle of a billiard-room light, with six burners, which actually gives a better light for a deep wound than does daylight, though our operating room is a very light one. The bracket lamp in the dark room gives a beautifully efficient light for throat and ear cases, but I have not quite solved the problem of using it for the eye. It is too bright unshaded, and I expect to try a neutral-tinted chimney if I can get one. The laboratory has a Bunsen burner and a microscope lamp that furnishes a light that brings out the colors of Leishman's stain very distinctly. The apparatus is almost no trouble to run, and the only fault we have to find is that it is rather expensive as compared to kerosene. It will cost between $100 and $200 a year to run probably, but is worth it.

Another thing we are getting comfort out of is a set of sterilizers. It consists of a double-jacketed pressure sterilizer, 16' by 20', a pair of 8-gallon boilers for sterile hot and cold water of a model in
Correspondence.

use by the U. S. army; an instrument sterilizer on a stand with the two last, and a sterilizer for trays and basins, 20' by 18' by 18'. They are heated by kerosene vapor stoves. We have succeeded more than once in getting up 15 lbs. of pressure in 20 minutes with them.

I wish some of the men who are working over similar problems with our own could find time to take the trip up here as Drs. Macklin, Osgood, and Taylor have done. We would give them a warm welcome.

Yours very sincerely,

SAMUEL COCHRAN.

*Note.—The acetylene outfit came from the J. E. Colt Co., 21 Barclay St., New York. The sterilizers from the Bramhall Deane Co., 262 Water St., New York.

Our Journal is becoming more and more one of the magazines to which scientific men are turning for information on parasitic diseases.

A Plea for Scientific Nomenclature.

In the older days one seldom saw a quotation from this organ, but now it is nothing uncommon to see it quoted, even in editorials, in the home journals. This being the case, it behooves us all not only to be more careful what we write but how we write.

A fair number of the articles are upon subjects referred to in the title of this article and of that number, nearly all transgress the rules of zoological nomenclature. Chief among the transgressors was the writer until this, one of his literary sins, was found out by reading an extract of a pamphlet by Dr. Stiles, a part of which is given below:

"Of the many articles in the code, several should be studied by medical men resident in the tropical countries. Article 2 of the code states that scientific designation of animals is uniminomial for subgenera and all higher groups, binominial for species and trinominial for subspecies. As Stiles explains, one of these names is the generic name (corresponding to family name or surname of persons), the other the specific name (corresponding to the Christian name of persons). Thus man as a systematic unit is known as *Homo sapiens*; *Homo* being the family name, say Smith, *sapiens* being the specific name, say John. When a subspecies has to be indicated a third name is added; thus we have *Sus scrofa domestica*, the generic, specific and subspecific titles, meant to distinguish the domesticated hog from the wild boar—*Sus scrofa*. Article 3 rules that the scientific names of animals must be words which are either Latin or Latinised. Article 4 states that the name of a family is formed by adding the ending *idee*, and the name of a subfamily by adding *inee* to the root of its type-genus. In all cases the name of the type-genus is taken as the basis of the nomenclature and the endings *idee* and *inee* are added to the root of the generic title in question. Thus the tapeworms (*Tania*) in man are classified as: Family *Taniidae*, Subfamily *Taniinae*; Genera *Tania*...

Article 8 requires that a generic name must consist of a single word, simple or compound, written with a capital initial letter and employed as a substantive in the nominative singular; and Article 13 has it that while specific substantive names derived from names of persons may be written with a capital letter [Generally are not. O.T.L.] all other specific names are to be written with a small initial letter. Thus we may have *Rhiizoalona Custeri* or *Rhizoalona cuvieri*, but for other than persons' names the species is always written with a small initial as *Tania laia*.

Thus it will be seen that to write "The *Ascaris lumbricoides*" is a technical error as great as to write "The John Smith." To fail to italicize scientific zoological names is also, of course, a fault on the part of author, editor, and proof reader.

O. T. LOGAN.

Changteh, Hunan.

AN-LU, May 31, 1910.

DEAR SIR: It is a fairly well known fact that even small doses of Oedema Potass iodide may sometimes cause oedema glottidis, but perhaps such a case may be of sufficient rarity to justify one in reporting it. Patient, Koah Hsi-ming, local practitioner of some repute, was admitted on April 21st to break off morphia habit.

May 18th. Opium had been cut off and patient was taking a simple tonic.

May 21st. Patient complained of headache which had troubled him previously, and on evidence of sunken nasal bones and scarring on forehead, was put on pot. iodide in doses of 10 grs. t. d. s.


Evening. Patient worse. Cannot swallow fluids or saliva. Treatment: Paint swollen parts with solution eucaine and adrenaline. Sterile tracheotomy tube, etc.

May 24th. 2 a.m. Patient worse. Some difficulty in breathing, especially expiration. Speaks only in whisper. Examination shows a small triangular opening between folds and some swelling of base of glottis. Very distressed. Wishes to go out to treat himself. Treatment: Repeat painting. Amateur psychotherapy (i.e., impressed on him that he would soon be easier).


May 25th. Patient has slept well and is taking his morning rice with gusto.

In all he had seven doses of the mixture, i.e., 70 grs. of potass. iodide. Another dose would have meant tracheotomy.

I remain, cordially yours,

EDWARD CUNDALL.

SHANGHAI, 7th June, 1910.

DEAR SIR: In the March issue of the CHINA MEDICAL JOURNAL reference was freely made in the Fourth Interim Report of the Research Committee to the prevalence in China of Ankylostomiasis. As so many of your readers are interested in this disease we shall be much obliged if you will mention in the JOURNAL that we will send literature on the subject in response to enquiries.

Thanking you in anticipation for your kind compliance with our wish.

Yours faithfully,

BURROUGHS WELLCOME & Co.

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Personal Record.

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BIRTHS.

At Paoning, Szechuan, April 7th, to Dr. and Mrs. ELLIOTT, C. I. M., a son (Charles Evans.)

At Kuliang, Fukien, June 16th, to Dr. and Mrs. J. E. GOSSARD, A. M. M., a daughter (Helen.)

MARRIAGE.


DEPARTURES.

June 8th, Dr. and Mrs. H. T. WHITNEY, A. B. C. P. M., Foochow; Dr. and Mrs. H. M. WOODS and son, S. P. M., Tsingkiangpu, and Dr. MARY V. GLENTON, A. C. M., Wuchang, all for U. S. A.

June 14th, Dr. and Mrs. H. W. BOONE and daughter, A. C. M., Shanghai, for the U. S. A.