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THE OPIUM HABIT.*

By P. L. McAll, B.A., M.B.

The opium habit or its modern development morphinomania has been said to be “of all our luxuries the surest destroyer of health and prosperity, position and life.” The subject therefore comes before us as members of a medical missionary association in a double aspect—physical and moral. Let us first consider some points bearing on the moral side of the question. No doubt the effects of the habit in China and civilized countries are different, and as our work lies out here, it may be well to limit ourselves to the practice as we see it here. Personally, beyond finding out that an opium smoking Chinaman is even more ready to tell lies than his fellow-countrymen, I have with my own eyes seen very little of the moral evils that according to reliable evidence follow the habit. But from what I have heard from Chinamen and others, the moral effects concern not only the victim himself but involve to a deplorable extent the members of his family, too. On such points the experience of a missionary who lives in close contact with the natives and knows their family lives—be he a medical man or not—is the best guide we can get as to the nature of the evil. Comparatively few missionaries, and still less other foreigners, are in a position to see for themselves the full effect of the habit on the family life of China. There is, however, plenty of evidence to show that in many cases where the victim cannot otherwise find money to buy opium with he will sell the members of his family, so that a man so far

*The abstract of a paper read before the Hankow Medical Missionary Association in April, 1902.
from working to obtain the necessaries of life for his wife and children, will actually sell them to provide himself with more of the drug that has ruined him. Among the well-to-do it may be that the moral effect is chiefly focussed on the victim himself; and as in any case the victim who comes before us as medical men will be loath to tell of the evils that have come on his family through his indulgence in opium, I should be inclined to think that the more the truth comes to light, the more terrible shall we find the actual state of affairs to be. We should regard the positive evidence as to the harmfulness of the habit as nearer the truth, and bear in mind that negative evidence is very likely to be incomplete.

Leaving, however, the moral side of the question, let us look now at the physical side. This branch of the subject is capable of many sub-divisions, and any complete discussion of it should include notes on the relative prevalence of the habit in the different provinces of China, the ratio of men and women practising the habit, the age when the habit is begun and why it is begun, the various preparations of the drug in use among the Chinese, the methods of taking it into the system and their relative effects, the action of the drug and the clinical phenomena, the reasons why people wish to break off the habit, cases suitable for breaking off the habit, methods of breaking it off, and lastly the permanence or otherwise of the cures.

About the relative prevalence of the habit in different parts of China there is no doubt that in some places the evil is far greater than in others (e.g., in Hankow there are said to be only 600 dens, while in Chungking the number is put at over 10,000). But I have no figures to give for other places, and can only hope that others may know more about this point. So far as I have seen, men of all classes may become opium habituéés, while among women I have chiefly seen and heard of the habit among the upper classes.

Commencement of the Habit.—Opium smokers seem to begin the habit at any age and from almost any cause. One meets with young men under twenty who smoke several drachms per day; such have often begun from fun or because of a friend who does so (cf. cigarette-smoking amongst young England). Others begin because of some ailment, very commonly indigestion or phthisis, sometimes because of chronic rheumatism or because a native doctor has ordered it for dysentery. Such usually begin the habit in middle life. Again we find mental troubles, such as the worries of family or official life, cause others to begin late in life.

The Preparations of the Drug used by the Chinese.—There are, to put it briefly, the opium grown in India or China on the one hand, and on the other the alkaloid morphine imported from abroad or prepared in places like Shanghai. Of opium there are several varieties in use, of which the chief are the Indian or Canton opium, the Yun-nan, Shensi, and Szeh'uan. The price of these varies from about 730 cash per Chinese ounce for the Cantonese to half this
OVARIAN TUMOR, CYSTIC.
The Opium Habit.

sum for the Szch'uan variety, and the strength of the article seems to be proportionate. We may briefly sum up the process of preparation by saying that the crude article is boiled and filtered to make a treacly mass, the price of which is about thirty per cent. more than for the crude opium, and runs from about 1,000 cash per ounce for the Cantonese to some 500 for the Szch'uan. This treacly mass is often adulterated with substances such as the unfiltered refuse from the above process, boiled sesame or the glue-like substance got from boiling pieces of ox hide. After the opium is burnt, some sixty per cent. of it remains in the pipe as ashes, and these ashes are often re-smoked by being mixed with more of the treacly prepared opium or in other cases are mixed with water and drunk (cf. the case of an American who used to mix the ashes with water and inject them subcutaneously). There is another form in which morphia is now consumed in China, namely in tabloids and injections. This practice is said to be steadily on the increase. The full Customs' Report for 1901 is not yet to hand, and it is hardly fair to compare an abnormal year like 1900 with 1899, for the imports for the year were greatly reduced by the general disturbances through China and the consequent depression of trade. A comparison, however, of the returns for the last decade, warrants the assertion that the native opium is slowly ousting the foreign kind; thus in 1891 some seventy-seven thousand piculs were imported, while in 1899 some fifty-nine thousand piculs came into the country. For the port of Hankow the returns for 1901 have been printed, and show that the amount of Indian opium imported is steadily decreasing; thus: in 1892, the import of Indian opium to Hankow, was 747 piculs; in 1895, 579 piculs; in 1898, 465 piculs; in 1901, 276 piculs.

With regard to the methods by which these various preparations are consumed, we will first take up opium smoking, by which a man, according to his taste or the time at his disposal, will burn some three to ten grains of the treacly mass and inhale the sublimed products through his pipe. This method is too slow if the daily amount consumed is very large, and is too expensive if the victim has much difficulty in finding the money. Accordingly we find that several resort to the method of swallowing opium; it is quicker, and a smaller amount is required to produce the desired effect. Opium smokers are said to prefer the Chinese opium (which has only three to seven per cent. of morphia in it) rather than the stronger Indian kind. The smoker inhales the sublimed products of the opium, but the amount of morphia which enters his system by this method is small. According to scientific calculations it would appear that more than half the morphia in the charge is not consumed at all; of the remainder a considerable part is sublimed about the pipe itself, leaving perhaps one-quarter or one-fifth to enter the system. This then enters by the respiratory tract, which may not be so absorptive as the alimentary. From the statements of patients I have found that they think one part of opium swallowed by the mouth has about the
same effect as smoking six or seven parts through the pipe. With regard to the hypodermic injection of morphia, this is apparently on the increase, especially in and round the treaty ports. One victim accustomed to take the drug in this way said it was much cheaper than smoking, and gave him the same satisfaction. For a time it was common in Hongkong, but the authorities, growing alarmed at its spread, made the practice illegal. The great disadvantage of the injection method is the abscesses and ulcers to which it gives rise. More alarming still is the effect reported in cases where it has been accidentally injected into a vein, for there occur profuse sweating, violent twisting headache, dilated staring pupils, marked depression of the cardiac and respiratory functions, a train of symptoms contrasting vividly with the ordinary effect of morphia. The relative effects of morphia taken by the different methods would seem to be—one part by injection is equal to one and a quarter swallowed or seven and a half smoked.

With regard to the maximum amount taken per day the worst case I have heard of was a man who some years ago was in our hospital at Hankow and who swallowed every day five drachms of the drug. But this does not come near the amount that De Quincey took, nor the fifty or sixty grains of morphia that modern morphinists have been known to inject.

We now come to the action of the drug and the clinical phenomena observed in patients taking morphia. With morphinism or the opium habit we have for the most part the effects of frequently repeated doses of morphia; the doses being, as a rule, gradually increased, because toleration of the drug soon comes on and the original dose soon fails to produce the original effect. Instances, however, are on record of a small dose being taken for a number of years with no increase and very little damage to health. At first the symptoms of the chronic habit are chiefly mental and moral, shown by dilatoriness and inability to do work until the craving is satisfied. Later the victim's face becomes sallow, loss of appetite, indigestion and emaciation follow, moral and physical degradation comes on, the powers of the mind are blotted out, and finally the victim's capacity, even for fitful work, disappears; the periods of excitement consequent on taking the drug become briefer and briefer, and in late middle life, if not earlier, he is carried off by some intercurrent malady. To go more into details, it must not be supposed that the effect on the system of repeated doses is altogether the same as the repetition of the effect of the original dose. At first there is a diminution of every secretion of the body, except the urine and saliva; but when once the habit is established, the system seems in some way to get over this and the normal bodily secretions are not markedly reduced. The effect of each dose is to produce a period of excitement shown in the stimulation of physical and mental energy; this is followed by a period of calmness and inaction, ending in lethargy, and again the craving for a fresh dose comes on. Heart, brain, the digestive tract
and the motor powers alike refuse to do their work comfortably without it. A theory has been advanced which to some extent will explain the increasing doses necessary, namely that when morphia is taken into the system, a sort of antidote to it is produced by the reaction of the tissues to the drug, and if all this antidote be not first eliminated a correspondingly larger dose is required to produce the original effect. A noteworthy fact is that the absorptive power of the intestinal tract is greatly reduced; this leads on the one hand to emaciation and on the other brings it about that large quantities of certain drugs (e.g., bichloride of mercury) produce no effect while the action of other drugs is rendered very uncertain. Another marked result of the habit is the disturbance of sleep that comes on; the victim being unable to get any rest unless he first partake of the drug. There is a common idea among the Chinese that dysentery or diarrhoea occurring in an opium smoker are very difficult to tackle, and one's small experience in such cases bears this out. Aluminuria is also not infrequently found and is often fatal. I can find no record of a post mortem examination of a chronic opium smoker, and should be very glad to hear if any pathological lesions are to be found.

About the Detection of the Habit.—When morphia is injected the marks of the needle, the ulcers, and abscesses resulting, give a clue to what is going on. An analysis of the urine will show the presence of morphia if the amount entering the system exceeds two grains per day. Periods of excitement with small pupils are suggestive. Isolation followed by discomfort, terminating in a delirium that is at once relieved by morphia is conclusive.

Let us now consider why the habit is broken off. I think the commonest reason is because the expense of it is getting beyond the victim's financial resources. Take a man smoking six drachms per day; this will cost him 250 to 350 cash, and on such a sum he could feed four or five people. Some only intend to reduce the amount and begin again at a cheaper rate. Others come at the instigation of friends with no fixed purpose of their own and form a very unpromising class to tackle. Some come because they wish to enter on a post from which they are debarred by opium smoking. Some few come because they realize the thing in itself is evil, and wish to break away from what has ruined so many others.

Let us now think of what cases are suitable for breaking off the habit. It is easier, however, to mention cases that are not suitable, and among them we must put patients suffering from chronic diarrhoea, aluminuria, or any advanced disease, such as cancer, phthisis, and cardiac failure. Further, those who come, brought by others, have seldom the determination necessary to break off the habit.

As regards the methods of breaking off of the habit. I have met with a few patients coming for other ailments who say that they used to smoke opium, but now do not; they say they gradually broke it off at home, and this may be true. Many are allured by special pills which stop the craving, but of course
only do so by supplying the desired drug in an unknown form. Some (probably very few) are able by their unaided will power suddenly to break off the habit. As a general rule the help of a doctor is necessary, and treatment should not be carried on in the patient's own home but in a hospital. He should be carefully searched on admission and not allowed to go out during the process of cure; any friends who may come to see him should only be allowed to do so in the presence of a reliable attendant. These precautions are necessary, because the tendency to deceive is so exaggerated in the victim that while voluntarily coming under treatment to break off the habit he will often contrive to get the drug by stealth, as Coleridge did. Some few cases have still enough moral back-bone left to make no attempt to deceive the doctor in charge, appreciating the fact that if they deceive him, their chances of cure are reduced.

Coming then to the actual treatment, we will first consider cases where another ailment is present. Minor surgical operations may be safely tackled in patients who do not take large amounts, especially if it is decided to break them off gradually. Major operations should be preferably tackled separately, either before or after the opium habit has been dealt with, more especially does this apply to cases where the sudden break off is going to be tried, for the patient will probably need all his strength to free the conditions one at a time. Very annoying are cases of rheumatism or lumbago where the opium kept the pain in check and where now that the opium is reduced the original pain returns. It must further be remembered that many patients coming to us after meeting with an accident are opium smokers, so that if the fact is early recognized and appreciated they will stand a better chance. Sometimes they can be cured of the opium habit almost without knowing it, while their attention is monopolised by the results of their accident; in other cases opium must be continued if they are to pull through at all.

There are two chief methods of withdrawing the drug—the sudden and the gradual. The former may be tried in healthy patients under thirty-five who do not take more than five grains of morphia per day or who do not smoke more than one ounce of opium. There will be of course tremendous discomfort, but very little actual danger to life; one advantage claimed for such treatment is that patients thus treated are very loath to return to a drug it has cost them so much to break free from. But on the other hand, if the patient should slip back again into the habit, he will not be very ready to put himself under such treatment again, nor will others who hear of his sufferings be tempted to come; further, the patient is physically unable to give an attentive hearing to the gospel, and is therefore less likely to leave the hospital with a knowledge of the truth that will help him to stand firm in the future. And yet another disadvantage is this, that it puts a tremendous strain on the
nursing staff, for such patients will do anything to get outside and obtain more of the drug they want. Those who make use of the sudden method make a special effort to keep the patient under the influence of drugs that will deaden his sensations and treat special symptoms as they arise. Others put the patient markedly under the influence of alcohol for some days; the object being as before to deaden sensibility until the system has got into the way of doing without the opium. Under the sudden method it is nevertheless sometimes wise to tide the patient over a critical time with small doses of the forbidden drug. The symptoms that follow when the habit is suddenly interrupted are not difficult to understand, for they are very nearly the exact reverse of a dose of morphia. This may be explained by supposing that the system having for a long time been accustomed to the drug, has contrived by various means to counteract its action. The counteracting efforts are very successful and become such a settled habit that when the drug is stopped they continue and show themselves in a marked degree; the system being unable to readjust the balance immediately. And inasmuch as the victim has developed the power to pour forth gastric and intestinal secretion in spite of opium, he now suffers from a tremendous increase of these secretions, and vomiting and diarrhoea result. Further, he has learnt to keep awake, in spite of his habitual dose of opium, and now that his opium is withdrawn, he suffers from most distressing sleeplessness. Polyuria and bronchorrhea are often present. Rheumatic pains in the limbs and in the small of the back trouble him greatly. In bad cases there is marked cardiac depression; the pulse getting as low as forty beats per minute. Of these symptoms the most serious are the vomiting and diarrhoea, the sleeplessness which may, if unrelieved, pass into delirium, and the failure of the circulation. These symptoms are met by tonics, carminatives, and astringents; big doses of sedatives are of service; hot applications to the stomach often greatly relieve the vomiting and diarrhoea; digitalis is of service for the heart failure, and recently large draughts of a dilute solution of soda bicarb. have proved efficacious in relieving the muscular pains (see below).

In the gradual method the system has more time given to adjust the balance of affairs and to desist from attempting to counteract the morphia. The secretory and cerebral functions of the patient are allowed gradually to return to their normal condition. The methods of supplying the patient with diminishing doses of the drug are very many. Morphia can be injected hypodermically or some of the various preparations of opium or morphia can be given by the mouth. Nor is it difficult to calculate the amount of any particular preparation required to replace the morphia a patient has been taking. Thus suppose a man smokes six drachms of Szch'uan opium per day, this is equal to swallowing about one drachm. Now in the Szch'uan opium there is say some five per cent. of morphia, so that in one drachm there
will be three grains. In the British Pharmacopoeia the preparation called liq. morph. hydrochlor. is of the strength of one in 100, so that 300 minims or five drachms of this preparation will contain three grains of morphia. Hence it follows that the six drachms of Szch'uan opium, smoked, will be equalled in effect by five drachms of liq. morph. hydrochlor. taken internally, or one drachm of this opium by fifty minims of the solution. As a matter of practice it is rarely necessary to give the full equivalent; forty minims or even thirty answer all right in ordinary cases. The exceptional cases are those where the amount of opium smoked per day is comparatively small and when the habit is of a great many years' standing. In such cases it is well to begin to start the reduction from very near the full equivalent. The amount of the right daily dose having thus been calculated, the effect of the initial reduction must be carefully watched, and if there is no marked malaise, no vomiting or diarrhoea the following day, there may be a further reduction made of about one-eighth. In ordinary cases where the patient has been in the habit of smoking not more than four to six drachms per day, the following plan, which cuts off the drug gradually in twelve days, may be tried. It is very simple, as all the morphia containing medicine is dispensed for each patient when he first comes in, and does not require to be measured out afresh every day. Calculate the equivalent amount of morphia for the first day, multiply by six, make it up to twelve ounces with some flavouring agent such as quassia and water, and give the bottle to an assistant with instructions to keep it under lock and key. Direct him to give the patient two ounces per day in divided doses, and every evening, when the daily amount is consumed, tell him to add one ounce of pure water. Thus the medicine is reduced by one ounce per day, and is at the same time steadily diluted, so that at the end of twelve days the bottle is empty and on the eleventh day the amount of morphia given was extremely small. This method is very useful where there are a number of opium patients in at a time, for it saves a great deal of measuring and calculating every day. Or it may be preferred in some individual case to carefully order each day's reduction as symptoms require, and the following figures will show about the rate at which one may proceed. Taking again liq. morph. hydrochlor. as the medicine to be used; if the daily dose is between dr. v. and dr. iii., reduce by half a drachm per day; when between dr. iii. and dr. ii., come down by twenty minims per day; when between dr. ii. and dr. i., come down by fifteen minims per day; under dr. i., come down by ten minims. By this plan we get the following figures:

| Amount of opium smoked per day | dr. viii. | dr. vi. | dr. iv. | dr. ii. |
| Cost of ditto (English money)   | 1s.      | 9d.    | 6d.    | 3d.    |
| Initial dose of liq. morp. hydrochl. | dr. v. | dr. iii. m. 45 | dr. iii. | m. 75 |
| Total amount of ditto (circa.) | dr. xxy. | dr. xx. | dr. xiii. | dr. ivy. |
| Total cost of ditto             | 10d.    | 6d.    | 4d.    | 14d.   |
| Number of days taking ditto     | 17      | 14     | 11     | 7      |
From which it is clear that the expense of providing them with sufficient
\textit{v.g.} morph. hydrochlor. to break off the habit is less than the sum the
patient spends for a single day's opium smoking. It is often possible to reduce
the dose faster than indicated above, but it may sometimes be necessary
not to go so fast. The effects must be watched in each case, and if nausea
or anorexia occur, much more if there is vomiting or diarrhæa, the reduction
must proceed more slowly. But beside giving the actual drug itself there are
other drugs which prove most useful, and they lie in the direction of hypnotics
and drugs which act on the gastro intestinal secretion. At first the patient is
almost sure to complain of sleeplessness, and to meet this, \textit{choral bromides}
or \textit{cannabis indica} should be given; trional in doses of thirty or forty grains
is highly spoken of. If hypnotics are used they should be steadily reduced
till finally none are needed at all. Still more important is the plentiful use
of alkalies to neutralize the \textit{hyperacidity} of the gastro intestinal secretion.
One plan that has met with considerable success is to give the patients large
draughts of a one-third per cent. solution of \textit{soda bicarbonate}. Another way,
the good effect of which I have seen, is to give some such powder as the follow-
ing three or four times a day:—\textit{sod. bicarb.}, twenty grains; \textit{pulv. rhei}, grains
three; \textit{zingiber}, grains ten; \textit{pulv. nux vomica}, grain one, to which one may
add \textit{pulv. digitalis}, grain half if any circulatory weakness be discovered. Another
advantage of the alkalies is that they seem in some way to check the lumbago
and distressing aching pains of which many complain. Some such daily
programme as the following answers well*: 8 a.m., one powder as above;
11 a.m., half the daily dose of the medicine containing the \textit{morphia}; 2 p.m.,
another powder; 5 p.m., the other half of the \textit{morphia} medicine; 8 p.m.,
another powder, and later at night, a sleeping draught if necessary. When
after the lapse of some days the patient has ceased to take the reduced doses of
\textit{morphia}, he should be kept at the hospital for another week, during which
time a vigorous tonic treatment is indicated, such as \textit{quinine}, \textit{strychnine}, and
\textit{arsenic}. Two other drugs should be mentioned which have been found of
service by recent writers—one is \textit{spartein}, and the other \textit{atropine}. The latter
reduces the profuse secretions and can be commenced with a dose of 1/300 of
a grain. One \textit{complication} needs to be specially mentioned; this is \textit{diarrhæa}.
The occurrence of diarrhæa is usually due to a too rapid reduction of the
\textit{morphia}, and the first indication for treatment is therefore to reduce the drug
less rapidly. It is a good plan to give \textit{castor oil}, increase the \textit{soda bicarb}
and follow by astringents like \textit{catechu kino} and \textit{lead acetate}; if these fail,
though given in big doses, one may try, as a last resource, pills of lead and
opium. As regards diet, plenty of milk and other light nutritious foods are
well borne and of great service.

*This scheme is based on a plan devised, I think, by Dr. Edwards, of Tai-yuen-fu
The question of recurrence after breaking off the habit is often asked by outsiders in the form of, "Are your cures permanent?" or, "Do your opium patients go back to their opium again?" It is well nigh impossible to give any figures on this point. In some cases we are able to hear of patients afterwards and learn that they have not returned to the habit. Others, however, come back repeatedly to be cured as it were pro temp., and there is a certain amount of disappointment in finding out that though they left us before, apparently cured, some companion or slight trouble has been too much for them, and they now indulge in the vice as of old. We must not, however, give up hope, nor forget the great classical instance of De Quinquey, who took morphia for fifty-two years; at one time consuming as much 8,000 drops of laudanum per day, and after breaking it off four times, finally gave it up altogether.

But above all let us bear in mind that more important still it is to use every effort to get the opium smoker to put his trust in Christ. For whatever method be adopted of breaking off the habit, when once the patient gets outside the hospital, he will be tempted to indulge in the vice again, and nothing is of such avail as the power of Christ to make the cure permanent and prevent the old opium habitué from falling back into the habit again.

N.B.—In the preparation of this paper the works chiefly consulted were articles in Clifford Albutt's "System of Medicine" and in the Encyclopædia Medicæ. The author regrets he has not been able to consult Dr. Jenning's recently published book; he hopes it will soon be reviewed in the Journal.

NOTES ON SOME CASES IN CHANG-TEH, HUNAN.

By O. T. LOGAN, M.D.

Case I.—A man, to spite a creditor, cut his throat through the crico-thyroid membrane, severing the wind pipe completely and all but cutting into the œsophagus. He was willing and anxious to have me treat him, but would not come to our place. The wound, which was gaping about two inches, was united by deep and superficial sutures around a tracheotomy tube. A better way would have been to have performed a tracheotomy and closed the wound tightly, but I knew that the family would not permit this, so I did not suggest such a course. Some of the stitches pulled out, and this, together with the action of the tube, prevented good approximation of the upper and lower sections. Eventually the wound narrowed down to the space occupied by the tube, but the larynx seemed determined to close up completely. Silver bulbs, made to fit the lumen of the larynx, were passed through the wound from below upward and left in place. A small collar prevented these bulbs from slipping upward, while they were supported from below by the tracheo-
Notes on Some Cases in Chang-teh, Hunan.

The patient made a good recovery from the operation, and has remained robust ever since. At present he introduces the tube and silver bulb himself. When the tube is removed and the opening in the neck closed, he can expire freely, but inspiration is difficult. I have received an intubation set now, and I hope, with God's blessing, that by inserting a tube for some weeks the outer wound can be made to close and at the same time a free passage for air be established. One of my authorities advises the tight closing such wounds and the expectation of primary union. Such a procedure could not be carried out unless the patient were within easy call of a skilled attendant.

Case II.—A man formerly an accountant, but reduced to a beggar on account of a dense opacity of the cornea. There was a small clear spot in the cornea at the outer side. I tried to dilate the pupil, but could not, even with strong solutions of *atropine sulph.* The patient said he could see the sun as a "yellow cake." After weeks of treatment of the trachomatous lids, upon the patient's importunity, operation was agreed upon, a gloomy prognosis being given. Our light was miserable and the condensing lens worse, the iris was adherent, but after four "bites" of the forceps enough of the iris was pulled away to give a small optical pupil. I had little hope of any improvement in vision, but was rejoiced to see the patient discard his cane and become able to recognize large and later small characters. This case illustrates what can sometimes be done with a very unpromising case by one comparatively inexperienced in eye operations; the prayer factor being present.

Case III.—Mr. D., a watchman *en route* to the Kuei-cheo quicksilver mines, came to us with typhoid of moderate grade. The second day he had a hemorrhage, but it did not pull him down to any great extent. The sixth day his pulse went down rapidly and the body was drenched with perspiration. Hemorrhage was thought to have taken place, and large doses of *tr. opii* with *plumb. acetas* were given. In spite of this, watery stools appeared about four hours afterward, but no blood. Later the characteristic "rice water" stools appeared, and we knew we had cholera in addition to typhoid. A large subcutaneous saline infusion brought the pulse back, the skin became warm, and for a single day we had hope of recovery, but the patient gradually became delirious and passed away after his sturdy body had made a hard twelve-hour fight with the last enemy.

(It seems to me, from my observation of cholera this summer, that "rice soup stools" describes the appearance of the evacuations of cholera better than the classical term used in all text books. What say the brethren?)

Mrs. Logan contracted cholera three days after Mr. D. died, but she did not reach the cold stage, thanks to God's grace and early, vigorous treatment. (My fault in treatment has been that I did not push the opium fast enough in the early stage. I find that patients in the beginning stand numerous doses of opium frequently repeated. I think enemata of *tannic acid*, one or two per
cent., with or without starch or mucilage acacia, are useful. In the cold stage the saline infusion has given best results, combined with stimulants.)

Case IV.—A child nineteen months old, daughter of Mr. S., of the Finnish Lutheran Mission. The child was noticed to stumble as she walked for a few days, after which she refused to stand, and cried when she was being dressed. There were no signs of joint nor spinal trouble, and the case was supposed to be one of slight traumatism caused by a fall. After about a month with no improvement—no amount of persuasion could induce the child to walk—the case was looked into more carefully. The mother suggested rachitis, as there was a family history of this disease, but not a sign nor symptom could be made out. For a time I was at a loss to know what to call the disease, but in reading that, to my mind, matchless authority on children's diseases, Holt, I found that he described a typical case of scurbitis, with symptoms pointing only to the joints, which matched our case. The food was changed—the child had been fed upon Mellin's Food and canned milk, apparently doing well upon it—a liberal diet allowed, including orange juice. Within a week the child ceased crying when being dressed, and in another week she began to walk. I neglected to state that she took sod. salicylate for about two weeks before a diagnosis of rachitis was made. I think the case is interesting, because this disease in the child is seldom mentioned in medical literature; it is also unique in this respect that there was no tendency of the gums to bleed, nor were the joints swollen or ecchymosed.

Case V.—Farm laborer, age forty, presented a very anæmic appearance, complaining of shortness of breath and pain in the epigastrium. Examination revealed very loud harsh murmur over the vessels of the neck. Blood examination showed no poikilocytosis. Hæmoglobin, thirty per cent.; eosinophiles, twenty-five per cent. The feces appeared normal, no blood being present microscopically. The microscope revealed numerous light grey bodies which, upon using higher power—one-fifth objective—proved to be the ova of the ankylostomum duodenale. Three twenty-grain doses of thymol, followed by castor oil, brought away dozens of the interesting little worms; the females being far more abundant. I put aside in a covered dish containing a little water, some of the fecal matter. In twelve hours the worms could be seen moving within the shell, and in another day many had hatched out and were moving around very rapidly. I observed the process daily for several days and counted dozens of the little wrigglers, but among these not a single male was found.

Case VI.—Retention of urine. A soft gum catheter was passed and a large amount of urine drawn off. Upon withdrawing catheter, a "mulberry" stone caught in the eye and was withdrawn with the catheter. This stone had ruptured the urethra and caused extravasation of urine into the scrotum. The third time we attempted to catheterize we failed. An operation had to
be done. With a large trocar and canula a puncture was made just above the symphysis pubis. The trocar was withdrawn, but the canula left in until the urine drained off, when a soft rubber catheter was inserted inside the canula, which was withdrawn, leaving the catheter in place; a safety pin preventing its going in too far. This catheter was left in place until the urethral route was fully open, when it was withdrawn and the small opening covered with antiseptic gauze held in place by adhesive plaster. The patient made an uneventful recovery, except that he contracted typhoid just when he was about ready to leave his bed.

Perhaps I have written too much already, but I think there has never been a report of cases from Chang-teh before, and we came here in December, 1898, so I will ask a little indulgence. There are two practical things we have found out here that have been of great service. One is that native cotton can be made absorbent and sterile if it is laid in thin layers and tacked, as the ladies say, between two layers of cloth, then boiled with carbonate of soda or green soap, which is rinsed out later. After this the excess of water is wrung out, preferably by a clothes wringer, and the cotton dried. This cotton is almost all one could wish for dispensary work. The other point is that the Chinese "shih kao" (石膏) is gypsum which, when heated, loses its water of crystallization and becomes plaster of paris. If pulverized fine enough it makes splendid splints, used as our plaster is used in the home land. My good wife, who is a trained nurse, should have the credit for the cotton discovery, as well as for many other things in connection with our work. I must say a good word for our microscope. Mrs. L. will not wonder at being spoken of in the same line with the splendid instrument, for she often declares I give it time that belongs to her. It has helped me many, many times. I now know whether a given fever is malaria or not, and can also tell whether another fever is due to typhoid or some hidden inflammation. I have seen people poisoned with quinine, grains xl.-lxxx. per diem, ad infinitum, when they had typhoid. A microscope would have prevented such mistreatment. Our children and others do not have to suffer the effects of santonin unless the ova of the lumbricoid is found in the stools. We older people do not need to keep our ears buzzing with quinine every time we feel "malarious" as we did until we were furnished with a microscope. I am sure that in a few years it will more than pay for itself in quinine that was formerly worse than wasted. By the way, good microscopes are cheap now and missionaries are given export prices by at least one first class American firm; this amounted in our purchase to thirty-two and half per cent. reduction.

I should like to hear from our brethren in different parts of China what kinds of malaria are found; microscopic evidence only being taken. Here we have found only the benign tertian and quartan; the latter constituting ninety per cent. of the cases.
Our new hospital wall is now up to the second story. The building is of solid brick with stone foundation extending four feet above ground. It is twenty-five by sixty feet. The first story is for the dispensary, drug room and large ward; a hall separating the latter from the former two. Upstairs will be a surgery, laboratory and four private rooms. I think when finished, ours will be the only hospital building in the province that was built especially for this purpose. May it soon be joined by others!

_Cumberland Presbyterian Mission, Chang-teh, Hunan._

**REMOVAL OF AN OVARIAN TUMOR WEIGHING SEVENTY-TWO POUNDS AND SIX OUNCES.**

By J. H. McCartney, M.D.

The patient came a distance of over 600 li, or 200 English miles, on the recommendation of a relative who had been in the hospital when a similar disease had been treated successfully by an operation.

Her age was forty years, was married when eighteen years of age. Her husband died when she was twenty-four years old, leaving her barren. She commenced to menstruate when she was sixteen years old and ceased when the tumor was noticeable at thirty-five years.

She had smoked opium fourteen years, using thirteen "chen" a day. She could not comfortably lay in a recumbent position on account of the pressure of the tumor on the diaphragm, and sleep was out of the question, excepting when in a sitting posture.

When she attempted to stand or walk about an attendant was always needed for support. She reached us in June, but on account of wild talk on the street about what we did, she was frightened, and did not come into the hospital for nearly a month after reaching the city. She came in about the middle of July, but owing to her opium smoking and the great heat we refused to operate until she had broken off her opium.

The weather did not break for about five weeks after her entry, and as she had waited so long and patiently, we decided to operate after the first fall of rain. During the time she waited she was given iron and _strych._ as a tonic three times a day, and for three days previous to the operation she was given one-sixtieth grain of _strych._ each morning and evening. She was given nothing to eat but rice water for several days preceding the operation.

I was ably assisted in the operation by Dr. Kirkwood and Dr. Hall, while Mr. Jas. Wang, my first assistant, gave the anesthetic. The incision was made with a pair of scissors, extending from about two inches above the pubic bone to at least three inches above the navel. The sack was found firmly adherent to the peritoneum. The fluid was drawn off through a cyst-
trochar and proved to be about the consistency of cream and of a dark color. The entire anterior surface was firmly adhered to the peritoneum and the posterior surface had numerous adhesions to the omentum.

The adhesions were broken down and the tumor pulled out, ligated and cut away. The bleeding from the surface of the peritoneum was persistent and profuse. So much so that the abdomen was flushed with saline solution once or twice. On removal of the large tumor, which was on the right ovary, there was shown to be a tumor about the size of a man's head on the left organ also. This was removed and the stumps were ligated with kangaroo tendon. At this stage in the operation the patient showed signs of collapse, and hot water bottles were ordered, with the result of producing three severe burns in different parts of her body, which have since given more trouble than the operation. The peritoneum was stitched up with a continuous catgut and the walls with a similar material also, and the skin with silk and silk-worm gut.

She rallied nicely from the operation and improved daily until about the eleventh day, when her fever went up to about 101.3. Previous to this it had remained normal or nearly so all the time. The dressing was removed and a stitch abscess was discovered, which was evidently caused by the subcutaneous catgut. After this she developed bronchitis in one lung, but this readily yielded to treatment, and at the present writing, a little more than four weeks after the operation, she is entirely well, with the exception of the burns, which are healing nicely. She sat up in bed the tenth day after the operation, and in two weeks was weighed on a pair of Howe scales, and weighed fifty pounds, which was seventeen pounds and six ounces less than the weight of the tumor. We weighed her again at the end of four weeks and she weighed seventy-five pounds and eight ounces, having gained twenty pounds and eight ounces in two weeks.

It seems almost incredible that the tumor should weigh more than the woman, but I can vouch for the correctness of the weight on a new "Howe" scales.

EMPLOYMENT OF CHRISTIANS.

By EDMUND S. DUKES, M.B.

There is a statement in the July number of the Journal which should not be allowed to go without a protest from some one. It refers to the habitual employment by the church of such natives as lose their work through profession of faith.

The danger is obvious: to be employed by a foreigner is much coveted, as numbers will throw up their own trade and join the church for a better living. There are few foreigners perhaps who can detect the dishonest motive in such a case if the wily native is on his guard.
Whether such a question is within our sphere as medical men some clericals might doubt. I would be the last to countenance a doctor interfering in the management of a church. But friendly consultation and advice is our due as missionaries, and the more scientific training of a doctor may perhaps be of use to the scholastic turn of mind generally found in the ministerial brother.

So let us boldly consider whether it is wise to hold out inducements to men to become Christians; more plainly, whether or no we should pay them (in cash or kind) for their joining our churches.

Now it is obvious that to an unregenerate mind the preaching of the gospel may have no attraction, yet if he can be induced to listen and understand the message, it is quite possible some chord will vibrate to the truth. I have been struck with the large part worldly inducements have had in such successful missions as those in the South Sea Islands, where tomahawks, etc., were freely distributed. And no doubt to thus use the products of a superior civilization to increase one's influence is altogether good.

So if we too can by our knowledge or money make ourselves of use to men, it will be our duty to spend and be spent in that labour of love.

But we must not forget that it is not to a select few to whom our Master has sent us; and any gifts we have it in our power to bestow must be for outsiders as much as for our chapel people. One was glad to see the reasonable and firm attitude reported by Dr. Saville, of Peking, in this particular. If we treat our church adherents and members in a different way to that we adopt to others, we shall soon have people attending regularly for a time previous to their application at the hospital, after which they will, as I have seen them, drop off again. Besides, even if it be a small matter, it gives the impression that in all ways our churches are for the advantage of the members, instead of being, as they should be, for the help of the lost.

We may well remember, too, as Dr. Saville reminds us, that it is the poor to whom we are specially sent, and that those who are able to pay for medicines and for our expenses, will naturally be expected to do so, since even our comparative wealth has a limit!

If we could but make it clear to officials and people alike that we do not come to foster a faction in China by any other means than the gospel, and if it were universally known that our love embraced the Chinese outside equally with those who think to flatter us by entering the church, we should on the one hand, remove much prejudice and on the other, preserve our churches from the scourge of unworthy members while we attracted honest seekers after the truth. And so we should teach men that the Pearl of Great Price is of greater worth than all worldly possessions, and show that we expected them, as a matter of course, to forsake all that hindered and follow Christ.
NOTES ON THE CLINIC OF THE MASTER PHYSICIAN.

By “Z”.

I. THE LARGER PURPOSE.

To those of us who, being more or less familiar with the life and the literature of the ancient Hebrews, dwell in native China of to-day, it can hardly fail to be a matter of interest and delight to trace, even beneath the pervading eastern atmosphere of both races, the deep-running currents of sameness and similarity in their characters, social customs, and mental reactions. One reads such a book as “Studies in Oriental Social Life” (Trumbull) and fairly feels that one might substitute the word China for Palestine and Syria and print a dragon on the cover; and the gospel narrative is vivid indeed, when one has but to lift the eyes to see a river of ancient eastern life glide by—a Matthew at every likin station, James, John, and Zebedee on every lake-shore mending their nets, Ruth gleaning, Boaz winnowing, a go-between for the betrothal of Chinese Isaac and Rebekah, and blind Bartimeus by the roadside. Yes, and the parallel currents flow more deeply. Ask an artist in the homeland to illustrate the words, “Come to me, all you who are toiling and burdened, and I will give you rest,” in terms of present-day American life. It can be done, but not easily, and the result must lack the simplicity of the original conception. But, on the other hand, ask a Chinese artist to illustrate the same in terms of every-day Chinese life, and it is readily done, and he will paint for you a gracious host, at the roadside entrance to his “so-kyien,” doors wide open, warm welcome in his kindly face and extended hands, and a group of foot-sore coolies gathering about, setting down their back-breaking “t'iau” and “kaung” burdens, and their overloaded wheel-barrows, and gladly accepting the proffered refreshment. A very living fact, that weary and heavy laden body to the Chinese coolie.

Thus it comes about that we have opportunity beyond the many of placing ourselves in the atmosphere in which the Master Physician did His work among the blind, the lame, the lepers, the deaf, and the poor; and, if we will, of studying with living illustrations the records of His clinic.

The records of the Master’s clinic are full enough and freely open to every student, and I do not hesitate in saying that there is no other series of cases on record of which the earnest study will prove comparably as profitable to the practical physician—not from his standpoint in relation to therapeutics (the intention was absent) but from the standpoint of the physician in relation to the larger science of men. In His thorough understanding of men, in the supremacy of His professional ideals, and in the firm grasp of His final objective; in His personal attitude towards His life-work, in His mani-
fest difficulties and bearing towards them, and in His estimate of success, there is, for the physician, inspiration and instruction beyond our measure of value.

The Master Physician's conduct of each case should be studied separately with carefulness. First the picture (plan it in your mind)—the place, the time of day or night, the characters and their several circumstances, the patient, his disease and his needs, felt and actual, the relatives, friends, and enemies too; the figure of the Physician, His dignity, tenderness, readiness, and wisdom, His greeting and questions, the answers to the same, aid sought or unsought, trust present or absent, the pains taken to understand and help, the relief, the comfort, the human touch. Note the difficulties, the degree of gratitude, the blessing and dismissal, the impression, the lesson and the Physician's estimate of success. Then—What is the application? What can we use? How can we live it? The records are open to all and the value to the student is, as usual, proportionate to the personal effort, and it is practical and potent. In the case of the man with the withered hand (Matthew xi. 9-14) (infantile paralysis) there is splendid breadth of view and mighty strength of manly courage, and I do not believe that one of us can spend an hour's deep thought on the record of Christ's visit to the house of Jairus and thereafter look upon a dying child with unaltered mind.

This study should be through the years, for its' lessons never fail, and these few student's notes from the Master's clinic (in this and another paper to follow) are offered with diffidence, so well trodden is the holy ground, but in the hope that something therein may prompt others who have not thought to do so, to study the records of the Great Clinic for the model and inspiration of their own.

The Larger Purpose.—To each and every medical missionary who aims to follow on, I take it for granted that the matter of paramount interest, the subject of major importance in life's work, is included in the correct answer to this question. In the work of Christ as physician, what was the ultimate objective? Why did Christ heal the sick? for therein lies not only our example, our inspiration, and our goal, but our very raison d'être. Why did Christ heal disease? And the answer for us at least must not be looked for in works on theology, but in the records of the work done. To solve a question vitally practical which bears upon the commonest acts of our daily routine as well as upon the sum total of our doings, let us see how the Master Workman did His work.

The more one studies the records of the individual cures, the more, it seems to me, one is led to see that in spite of their great variety of form and apparent diversity of treatment the Physician's ultimate objective in them all was identical, and that in every instance there was in His mind, alongside of and above the physical cure, a larger aim and a spiritual. Now he heals as a help to faith or its reward, now as its measure, the faith in Him.
Notes on the Clinic of the Master Physician.

by which He measured power to know all good. Now He heals to illuminate a lesson, to form a mighty text, to win the allegiance of the wills of men to the freedom of the kingdom that was to come, and now He heals to prove His life of love, the love that is the very "soul of God." But is His whole aim, in any single case, per se the victory over physical disease? I do not find that it is ever so. Let me briefly illustrate what I mean.

The paralyzed man, Mark II. Cure and a larger aim, to teach a lesson.
V. 5. Christ's first words—"My son, your sins are forgiven."
V. 10. "But that you may know that the Son of Man has authority to forgive sins on earth" here He addressed the paralyzed man, "To you I say, get up, take your mat and go home."

A man with a withered hand, Mark III. Cure and a larger aim, to teach a lesson.
V. 4. Of the people He asked; "Which is right, to do good on the Sabbath, or harm? to save life or destroy it?"
V. 5. "Stretch out your hand" . . . and his hand had become sound.

Cure of a Madman, Luke VIII. Cure and a larger aim, making a disciple, etc.
V. 39. "Go back home," He said, "and relate the story of all that God has done for you."

An afflicted woman, Luke VIII. Cure and a larger aim, the reward of faith.
V. 48. "My daughter," He said, "your own faith has made you well. My blessing be with you."

Jairus's daughter, Luke VIII. Cure and a larger aim, a new view of death, etc.
V. 52. "She is asleep."  
V. 54. "Child, get up."

I have no doubt at all that Christ saw, with the enthusiasm of the greatest of nature lovers, the cure of many a horrid disease, but according to the records He seems to have never once made a cure to see the cure happen, or for science without heart, or as a spectacular sign of personal power. He never raised His blessed hand to cure a man without some special throbbing of that great heart of love that beat that men might know God and broke at last that men might love and live.*

The life of no man has ever demonstrated a more clearly defined or more consistent objective than that of the Master Physician. In every phase of His work, whether as preacher, teacher or physician, He never lost sight of His goal—the establishment of the kingdom of God on earth through the revelation of the Father as men must know Him and through the revelation of man as God will have him.†

So, fellow-students, if we read aright thus much of the mind of the Master Physician, we know the answer to what is for us the great question, we know clearly the goal of our own race, the means to the end and the larger

* After careful study of the question, Bennett and Stroud come to the conclusion that the physical cause of the death of Christ on the cross was "rupture of the heart." (Diseases of the Bible. Bennett, p. 133.)
† "Jesus . . . surveys . . . all human interests, from above, as a means to that spiritual education of the race which is to have its end in God's kingdom." And again: "Jesus not only surveys the world (of business) from above, but approaches it from within. His methods begin with the individual, His supreme intention is that of making persons who shall in their turn make the kingdom of God."—[Jesus Christ and the Social Question. (Peabody).]
purpose itself. It is true that our work demands of us by every right a
genuine scientific interest. Science is our strong right arm, and the truer it
is and the purer it is, the stronger are we. We deserve no success if we fail
to live up to the intellectual dignity of our grand profession. Let us write
of our cases and report our successes, not forgetting our failures, keep our
statistics and use to the utmost our every scientific opportunity, but in
dealing with men, then the measure of our Christian manhood demands of us,
over and above the scientific spirit, the heart of love and the larger purpose.
There is no fuller answer to the oft discussed question as to whether or not
the medical missionary should do other than serve the body than the dealings
of Christ with His own patients. In modern times we word our commission
thus: "Heal the sick in order to a more rapid and powerful diffusion of the
gospel," but clearer and fuller is the commission of the Master Physician,
founded on His practice and formulated for His seventy students "Heal
the sick and say unto them, the kingdom of God is come nigh you." In
other words, Follow my footsteps, be medical missionaries, heal the sick,
and to some speak cheery words or lend a helping hand, make others feel you
love them and to others still show that God is love; heal and love! For

"There are many kinds of love, as many kinds of light.
And every kind of love makes a glory in the night."

Yet the old words hold good, for in the mind and practice of Christ the
Physician, the "kingdom of God" embraced all love.

AN IDEAL MEDICAL MISSIONARY HOSPITAL.

By Richard Wolfendale, L.R.C.P. and S., Edinburgh.

Because two at least of my own Mission in China (London Missionary
Society) are about to build mission hospitals, viz., Dr. E. F. Wills, of Tsao-
shih, and Dr. E. C. Peake, of Hengchow, may I be allowed to send a line to
the JOURNAL under the above heading, dear Mr. Editor? You observe I do
not say "the ideal medical missionary hospital," but "an ideal," hoping that
in the near future others who have been through the mill, and built one, will
give their hints as well. When I came to Chungking in 1896 our L. M.
medical mission work had been closed for about three years, so you may well
imagine in what state I found the Chinese-adapted premises that were shown
to me for hospital and dispensary. In those early days it was as much as
one could do to be able to put up a low two-storied building, even in Chinese
fashion, for fear of riots, "fung-shui," evil spreading rumours, etc., so I
emphasize the term Chinese-adapted. Now-a-days we live in more enlighten-
ed times, as my hints will tend to show. "This will not do for good,
lasting work," was my first inward thought after leaving the old compound,
An Ideal Medical Missionary Hospital.

and to-day, through the magnificent help of British Consul, foreign residents, foreign and Chinese business men, and city mandarins—and the full co-operation of the Home Board who gave me a free hand—a stone and brick, fire-proof, three storied (with gong tower to ring service hours) modern building stands in their place. And only four years ago! It is true that Chungking is an open port, and that here we care no more for "fung-shui" and idle rumour than we do for the ubiquitous Boxer! but even in places (country stations for instance) that are not open ports an advance line ought, I feel sure, to be taken in the matter of foreign erections. The day for being satisfied with Chinese-adapted premises ought to be over.

"Occupying the joint site of the old Chinese building, formerly used as the hospital, and the pioneer residence of our missionaries, there stands an H-shaped block, built of brick with foundations of stone. These stone foundations in every case go down to the bedrock, on which the city is built. Between the brick and stone is a damp course of zinc plate (sand and tar are better). On each side there is a seven-feet (Chinese feet) verandah, both upstairs and downstairs, for the use of patients. In the hot summer months these are delightful, as they effectively shade the interior wards. From the higher ones the patients can smell and feel the pure fresh breezes blowing up the great Yangtse river, and have an outlook of river and country scenery of fifteen miles extent. The men's wards are on the right limb of the H, the women's on the left limb; upstairs and downstairs alike. Special private wards are for foreigners and the bluejackets of H. M. S. navy (the 'Upper Yangtse fleet' consists at present of three gun-boats), and the highest room in the building, and which has no less than eight windows in it, is the infectious ward. In every case the doors are fitted with shutters and are of French verandah type; the infectious ward is also fitted up with external window shutters, which will be of inestimable value, as in cases of small-pox, etc. A small section of the building is given over to a study and lecture-room and materia medica museum. The cross-line of the H is given over to three rooms (and a fourth story constitutes the gong tower); the front one, the larger of the two, will serve as a guestroom, and in the centre of it is built a broad staircase leading up to the upstairs wards on both sides of the building, and yet another short staircase to the infectious ward and tower, or sai loe. The room behind is the operating room, communicating with both hospital wings (men's and women's wards) on the same level by separate doors and with the upstairs wards by the broad stairway: this operating room can therefore be used by foreigners and natives, and is lighted by sky panes and three good open-and-close windows fitted with wooden shutters. The men's wards will accommodate fifty beds very easily, women's and private rooms, also fifty. The six L. M. S. hospital assistants and medical students are housed in the same compound, and to each has
been given a small bedroom study. In case of fire, three wells in the compound are being kept in repair. Native tiles are used on the buildings for roofs, and have given every satisfaction. Foreign fire grates and chimneys have been introduced, and are much appreciated by the patients, although one felt at the time that this 'innovation' would not succeed. It *has* done so, however. Air space without and around has been provided for by getting the foundations and superstructure high, and in some cases pulling native walls half-way down and rebuilding with tiles, which method is so successful with the Chinese. In the heart of a great Chinese city, such as this, high walls, and a little crowding are inevitable, but by these means the best results are accomplished."—[Altered abstract from 1898 Hospital Report.]

The year following, the foreign dispensary was put up, a building separate and distinct from the main building, and consisting of consulting room, dispensary, minor surgical, and dark rooms. By the kindness of clerical colleagues the daily street preaching chapel is used as out-patient room, and so the "set" is complete.

We, Mr. Editor, in the West here have a proverb which runs thus: "No missionary has served his apprenticeship until he has built a house!" If all is true there is no better test of one's extent of language—and *patience*—than in building along foreign lines. No matter how well you tell your "laopan" to do a thing, it seems to him just the natural thing to do the exact opposite, and building needs personal supervision to the extremest point. Then the conditions of climate interfere; the summer sun was so intensely hot during my own "apprenticeship" that it blistered the men's backs as they were working, and this was immediately followed by a three weeks' downpour of rain that made it difficult to keep mortar and bricks together! Let our young builders know what awaits them! My own scheme was not completed for twelve long and weary months! The "apprenticeship" was a long one.

I would in conclusion submit some general rules which may help:—

I. Build, if possible, on a high level and near the city wall. You will have at least one side free from Chinese, and if the hospital faces an area of deep water or flowing river, so much the cooler and better.

II. Seek for strength and durability; these are only to be found in brick and stone buildings.

III. A two-storied building is infinitely preferable to a bungalow type. The higher one gets the freer from disease.

IV. The dispensary and out-patient department should, if possible, be separate and distinct from the main hospital building.

V. Make provision for sick foreigners, i.e., establish a "foreign ward." There may not be any immediate necessity for such, but there will be in
L. M. S. WOMEN'S HOSPITAL, PEKING.

(Ground Floor.)
L. M. S. WOMEN'S HOSPITAL, PEKING.
(First Floor.)
the near future. Bluejackets have come to stay with us, surveyors and mining agents are yearly increasing in numbers, and travellers ad infinitum.

VI. Re Plans.—Every doctor should make his own, and no one plan can do for all. The length and width of the plot purchased for building on will be his best guide. "Cut your shape according to your cloth." Then of course there is the question of expense, and only personal attention to small items will keep this down. It is a better thing to have three contractors on the job, viz., carpenter, mortarmason, and stonemason, than to entrust the whole scheme to one man.

VII. If Chinese property has been bought see that all drains are opened up to light and air for weeks before building, and under no conditions whatever allow a drain to flow under the foreign hospital. (Chinese way of making drains is all the better for a good downward and slanting flow.)

VIII. Make the wards light, airy, and well ventilated, but not draughty. The Chinese are like barometers, and are susceptible to the least change of atmosphere.

IX. Bedding and clothing need not be "foreign," i.e., blankets, foreign sheets, and pyjamas are not really required. We are not come out to China to make the Chinese British or Americans. The cotton vests, etc., worn by them is all that one desires, provided they be kept white and clean. Then the pukai can be kept absolutely clean by changing the outside covering, tied by tapes along one side, as often as is found necessary, and lastly the foreign hospital should be kept, and manned by a set of intelligent Christian students, who will take some pride in its erection in their city and district, who can regularly and in turn keep the out-patients' register in English and conduct hospital prayers in the wards.

With the hope that ideal medical missionary hospitals will soon be erected broadcast all over awakening China, I send these few lines, with best wishes of success to all doctor-amateur-builders. Let them consult I. Kings vi. 11-14.

London Mission Hospital, Chungking, West China.
Medical and Surgical Progress.

Medical.

Under the charge of Robert T. Booth, M.B., B.Ch, R. U. I.

The Lancet has published recently a very interesting article by Manson on the Diagnosis of Malaria. I call a few points from the third section, viz., Microscopic Diagnosis. He says, this is the most satisfactory, provided it is undertaken by one with large experience. A negative result by an amateur is valueless, a positive one is not much more to be trusted. It takes much practice to recognise all forms of the malaria parasites, to discriminate between them and vacuoles in the red corpuscles in fresh specimens, or dirt in dried and stained films. Although all may not be able to differentiate, every practitioner should be able to prepare blood films for examination. He recommends the following method: An ordinary microscopic slip is cleansed with alcohol. The patient's finger tip or the lobe of his ear is similarly cleansed. The finger or ear is picked with a clean and rather long ordinary sewing needle. A drop of blood is pressed out, and as it may contain epithelial débris, is wiped away. A second but very minute drop, of the size of a large pin head, is then pressed and touched lightly (the skin must not be touched) with the clean surface of the slip about an inch from the end. Immediately the shaft of the needle is placed transversely on the droplet of blood so transferred to the slip. After waiting a second or two for the blood to run out by capillarity between the surface of the slip and the needle, the latter, held between the finger and thumb, is drawn along the surface of the glass. In this way with a very little practice, a beautifully fine and even film is produced. For purposes of diagnosis Manson uses either borax-methylene blue or dilute carbthionine. In stained films or in fresh specimens, it is practically always possible to find the parasite, on one condition; the patient must not have taken quinine recently. Certain forms of the parasite, the crescent, for example, may be found after full doses of quinine, but the usual fever-causing forms, as a rule, disappear after the administration of the drug. In some cases when the parasite or its product melanin is not detectable in the peripheral blood, it seems that the microscope may be relied on for diagnosis. During and for some time after malarial attacks the leucocytes are greatly diminished in proportion to the red blood corpuscles. The diminution is principally in the polymorphonuclear and lymphocytes, so that there is a relative increase in the large mononuclears. Dr. Christopher and Dr. Stephens have described a method by which a fairly reliable diagnosis of recent or actual malarial infection may be made, no matter whether quinine has been administered or not. The increase in the mononuclears, they state, is principally during the apyretic intervals, setting in as soon as the temperature begins to fall. An increase beyond fifteen per cent. is proof of actual or recent malarial infection.

Are Anopheles the Only Agents in the Transmission of Malaria?

Writing in the Semaine Méd. for May, G. Montoro de Francesco asks some very pertinent questions in reference to this very interesting subject. It has been shown, he says, by competent observers
that the anopheles cannot transmit malaria to its offspring. Each insect must infect itself, and a period, varying from twenty to thirty days, elapses before it is capable of spreading the infection. He then asks, how does the anopheles obtain the organism of the form of malaria which appears in spring and which is so different in its evolution and clinical manifestations from the summer and autumn variety? The same question arises regarding the quotidian form which becomes epidemic in Italy at the end of the season, and is consequently nearer to the next epidemic, when the form attacks few persons. He comes to the following conclusions: (1) Malaria exists in localities absolutely free from anopheles. (2) The co-existence of these insects with malarial patients does not necessarily imply the diffusion of the disease. (3) Anopheles, as the culic— and doubtless many other insects—may play a part in the transmission of malaria, but other causes, notably damp air full of exhalations, play a more important part. The soil is the real soil of the hematozoa. While guarding against mosquito bites, it is still more important to avoid exposure at sunrise and sunset. Quinines should be taken and the rules of general hygiene observed.

"TYPHO-MALARIAL FEVER."

Time and again we have heard the above diagnosed, and it seemed as if the diagnostian had discovered a new disease; in fact some said they had found the parasite thereof. In these latter days we are beginning to realize that, while a combination of typhoid and malaria may occur and does often occur, still there is no new disease which can really claim the above title. We do not talk of "tuberculo-malaria," although it is possible to have "tuberculosis in some form or another combined with malaria.

We recognize also that the combination of malaria and typhoid is by no means such a simple disease as either typhoid or malaria separately. The severity of the disease tends to show that the typhoid bacillus is rendered unusually virulent by the presence of the malarial parasite. S. A. Gavala in the Vienna Clinical Weekly for May refers to the symptoms of the above combination, and it may prove of aid to us in the East, where such a disease is not uncommon, to note his remarks.

The symptoms and morbid anatomy vary according to the infection which predominates. The onset is frequently marked by attacks of intermittent fever, which later give place to a quotidian or remittent type. The regularity of the continued fever of typical typhoid is absent and short apyrexial periods are common. In some cases the temperature never rises above 100.4°. The most striking cases are those in which after a short initial rise the temperature becomes normal and remains so throughout the illness. The prognosis then is usually bad, and there may be constant delirium. A slight rigor usually precedes the evening rise of temperature (if present), and the remissions are accompanied by slight perspiration. Duration of combined affection is two or more months, and this disease is then continued as a simple tertian fever.

Epistaxes and gingival hemorrhage are common. The liver is always enlarged and tender, and there is often jaundice. Spleen invariably enlarged, soft and friable. Urine contains much albumen. Coma, intestinal hemorrhages, and cardiac failure account for most of the deaths. In some cases there may be peritonitis. A roseal rash was never observed. Post mortem, nearly every organ infiltrated with pigment (malaria).

EBERTH'S BACILLI IN ROSE SPOTS OF TYPHOID.

In doubtful cases of typhoid fever the rose spots should be examined for the presence of typhoid bacilli. Two recent writers have found them in
every one of fifty cases examined, and attribute the negative results of others to faulty technique.

Some of the tissue of the rose spots should be transferred to a liquid culture medium. The number of bacilli in each spot is too small for growth to be obtained on solid media. In broth a copious growth appears twelve to sixteen hours after inoculation. Two or more spots should be examined.

This method is valuable in cases in which Wedal’s reaction is delayed.

ACUTE SYPHILITIC NEPHRITIS.

Acute nephritis is rare in early syphilis. Cases are reported from time to time. In this there is great albuminuria. No other cause than syphilis could be discovered, and the cases speedily recovered under mercurial treatment.

The following circumstances alone justify the diagnosis, (1). Kidneys must be known to be healthy before contraction of syphilis, (2). The severity of the renal symptoms must run parallel to the other symptoms of syphilis, (3). The albuminuria must improve or disappear under mercurial treatment.

CHINOSOL.

This drug has come greatly into use in the last couple of years, and is a very valuable antiseptic. In addition to its use as an antiseptic lotion, it has been used with great advantage in many conditions.

The injection of a one per cent. solution into carbuncles has produced immediate relief. When injected into the sensitive and thickened spot on skin, probably the forerunner of a boil, no boil appeared.

Chinosol, combined with guaiacol carbonate, has been used successfully in phthisis.

Mixed with cocaine and made into a pessary, it has been found of use in uterine catarrh.

A young woman with phthisis, developed a lupoid ulcer on the upper lip, Chinosol was injected, and it healed rapidly with a smooth scar.

Several cases of nasal lupus have been treated, and in all the swelling of the mucous membrane rapidly disappeared.

Cases of phthisis have also been much benefited by the hypodermic injection of chinosol.

Malignant pustule may be cured by a single injection.

ARSENIC AND CANCER.

As early as 1887 Jonathan Hutchinson pointed out that the prolonged use of arsenic in medicinal doses may produce keratosis of the palms and soles and a peculiar form of epithelioma.

He has more recently pointed out that soap contains arsenic, a fact which seems to explain its well-known influence in producing chimney sweep’s cancer.

In the Polyclinic for July, Jonathan Hutchinson cites several cases in support of the connection between arsenic and cancer. I shall mention one case in illustration. A man, aged seventy, seen on September 29th, 1899, for an ulcer standing on the right forefinger and another on the back of the right shoulder, where the brace might have rubbed. Both ulcers were somewhat peculiar, and in association with them was a rough corneous condition of the palm which led Mr. Hutchinson to diagnose arsenic cancer. Investigation showed he had taken a considerable amount of arsenic. The finger and ulcers were removed and proved to be epitheliomatous.
ON THE REMOVAL OF FACIAL DEFORMITY

BY THE INJECTION OF PARAFFIN.

During the last year or two the above treatment has been successfully carried out by many surgeons. Paraffin of varying melting point has been used, but the most useful seems to be that with a melting point of about 104°F. Various forms of syringe have been used; the only essential being some means by which the needle can be kept hot and so prevent the paraffin solidifying in its lumen. Photographs of two very successful cases were published by Downie, of Glasgow, in the British Medical Journal for May 3rd, 1902, with a descriptive account of the cases.

ARTERIO VENOUS ANEURISM.

An important paper bearing on the above subject was published in the British Medical Journal for May 10th, 1902. In this article by Sir F. Treves the prognosis and treatment of the affection are considered. Prognosis is decidedly unfavorable, spontaneous cure being almost unknown, but the mortality is not high when compared with the mortality due to aneurism, in which the artery alone is involved. In varicose aneurism the prognosis is more favourable than in aneurismal varix.

Rest, posture, bandaging, persistent compression, and the Hunterian ligation are only mentioned to be condemned.

The treatment par excellence is the ligature of both artery and vein above and below the aperture of communication with excision of the sac between the vessels in the case of varicose aneurism.

But of course in many cases the ideal treatment cannot be carried out and the cure is incomplete.

RETROPERITONEAL LIPOMA.

In the Journal of Obstetrics and Gynecology for September, 1902, there is an article on the above subject by Doran, of London. Retroperitoneal lipoma is a rare disease, and must be carefully distinguished from omental lipoma which, although retroperitoneal, is as much intraperitoneal as an ovarian or broad ligament cyst. Omental lipoma is not by any means as serious an affection as the disease under discussion. Of true retroperitoneal lipomata and their removal there are records of only some seven or eight, and of these only two are records as having been successfully removed.

Doran's case was remarkable in several ways. The right kidney was displaced and connected with the mass, one lobe of which ran up to the liver and was somewhat adherent to the region of the pancreas, where the large vessels running from this lobe were seized and tied. The vessels from the left lobe were also traced to this region and tied. The tumour weighed thirteen pounds and twelve ounces. The patient died of urinary suppression thirty-eight hours after the operation, and no necropsy was obtainable.

Skin Diseases.

TREATMENT OF ACNE BY THE X-RAYS.

Two effects produced by the X-rays, namely, the checking of pus formation and the atrophy in the follicles, have suggested its use in the treatment of acne to R. R. Campbell, M.D. (Journal of the American Medical Association, August 9th, 1902.) His results have been gratifying, and he
reports numerous cases, of which the following are examples:—

Case 7.—Mrs. D., aged twenty-nine, brunette; severe acne of the forehead, checks, and chin, with rosacea of the nose; eruption existing to greater or less degree for twelve years, the face and nose never in this time presenting an appearance even approaching a normal or healthy condition. Between April 22nd and June 4th, 1902, twenty exposures to the X-rays were given, ten minutes each at ten to thirteen cm.

Exposures were made every day, and resulted in the entire disappearance of the eruption. No dermatitis or erythema was produced in this case, and no tendency to recurrence can be noticed at this writing.

Case 9.—E. G., aged twenty-five, brunette; eruption consisted of comedones, papules, and pustules. It began fifteen months ago on the chin, and at present it involves the entire face. This patient was given eleven ten minutes’ exposures, between January 17th and February 12th, 1902, at which time the face presented a smooth, clean, and healthy appearance, and at last reports, which was two weeks ago, no recurrence had taken place.—Medical Review of Reviews.

ARSENIC IN DERMATOLOGY.

Lassar and Schild (Dermat Zeit-schr., April, 1902) have been experimenting with a meta-anilide of arsenic which they consider to have advantages over the more commonly used preparation of arsenic. It is called atoxol, and is a white inodorous powder, with salty taste, soluble in twenty per cent. of warm water, and is of permanent composition.

It is well suited for hypodermatic use, but given internally soon disturbs the stomach. The dose for subcutaneous administration is at the beginning one-twelfth grain, and it has been increased gradually to seven grains. The remedy has a cumulative action.

Over seventy-five patients had more than 1,500 injections among them, without any irritation or infiltration worth mentioning. Thus an amount of arsenic ten times as much as that usually employed, can be used in this way without detriment. Tested in concert with external treatment, an acceleration in recovery was perceptible. Thus, in twenty cases of psoriasis, the average duration was twenty-nine days, and of ten similarly managed, the required time was twenty-five days, periods which compare favorably with those usually necessary. When atoxol alone was used, three cases of psoriasis exhibited marked improvement, even after five or six injections; but though this was maintained in a measure, complete cure did not ensue. Much better results were obtained in fourteen cases of lichen planus; of these, nine were entirely cured; the average number of injections necessary being twenty-seven in course of fifty days.

PRURITIS AFTER ARSENIC.

Purely local pruritus without alteration of the skin is a rare phenomenon in the course of the administration of arsenic. Two examples, therefore, related in Monasth. f. prakt. Dermat., April 15th, 1902, are of interest. One was a strong man, aged thirty-five, with no neurotic tendency. Any active external remedy occasioned dermatitis if the psoriasis from which he suffered was so treated. Under gradually increasing doses of arsenic, pruritis of the scrotum appeared, though he had no psoriasis there. This disappeared when the arsenic was discontinued.

In a case of lichen planus, where the arsenic was given in pills, the patient after a time complained of itchiness in the left groin, although the general itchiness and the eruption manifested improvement. The lichen gradually faded, but the pruritus increased in the groin. It vanished
with a reduction of the dose of arsenic. The most probable cause was the excretion of the arsenic in the perspiration.—*Medical Review of Reviews*, September 25th, 1902.

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THE NEW CAMPAIGN AGAINST SYphilis IN ASIA MINOR.

Prof. E. von Duraing has long resided in Constantinople, and was entrusted in 1896 with the task of planning a campaign against syphilis throughout Turkey in Asia. The province Kastimuni supplies the recruits for the capital, and the authorities found that every candidate was affected with syphilis, while whole villages have been wiped out by its ravages. It has been increasing for forty years, in spite of occasional brief spasmodic efforts to eradicate it. Von Duraing found entire provinces where every peasant he met seemed to be syphilitic. He traveled on horseback more than 3,125 miles during the last two years. He decided that numerous small hospitals were needed, supplemented by polyclinics and flying columns. He now reports that he has ten hospitals nearly or quite completed and several polyclinics; and the campaign is being pushed with vigor in the north-western provinces. The total expense of these hospitals was only $70,000, and he is himself amazed at the smallness of the sum; but, as he remarks, whole books might be written about the difficulties experienced in obtaining this amount and in accomplishing this result in spite of Oriental inertia. Most of the hospitals consist of three pavilions, models in every respect; the mountain streams supply pure water and the drainage is perfect.

He states that in the province of Kastimuni alone nearly 25,000 persons need treatment every year. He found leprosy prevalent everywhere. The number of lepers is not great, but one or two were encountered in every village. They were formerly kept in strict isolation; the leper was driven away from the community and compelled to live with other lepers in some secluded spot, but of late years these regulations have been disregarded and the lepers mix freely with the populace. Zambaco's proclamation of the non-contagiousness of leprosy has probably something to do with the present laxness. He found that all the officials quoted Zambaco.

During's letters to the *Deut. Med. Woch.*, Nos. 12 and 23, contain interesting descriptions of the medical aspect of Asia Minor, the beautiful mountain scenery, and the quaint therapeutic customs. He states that an alcoholic extract is made of the roots of the horse radish which, according to the experience of the natives and the railroad employees, proves an effectual preventive of malaria, even in the most malarial districts. He can testify himself that persons who went into these districts to open up the railroad, did not contract malaria, and attributed their escape to this extract. (*Jour. A. M. A.*, July 5th, 1902.)—*Modern Medicine*, August, 1902.

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THE FINSEn METHOD OF PHOTO-THERAPY IN DISEASES OF THE SKIN.

Prof. Charles Warren Allen in the *Post Graduate*, October, 1902, says:—

Though little has yet been done in this line in America, the number of operators is steadily increasing with the growth and perfection of mechanical detail in the apparatus, and indications point to great activity in this field in the near future.

Franklin and Gottheil mention some experiments in the *Medical Record*, April 19th, 1902, in which they have demonstrated that with large and powerful electric arc lamps, sufficient chemical rays may be caused to penetrate the human body to impress a photographic plate.

The same experimenters give in the *American Therapist*, June, 1902, a brief essay upon light and a report of
some cases which have been successfully treated and others which are still under treatment and progressing favorably.

S. Bang, in the Indiana Medical Record, March 12th, 1902, presents the present status of photo-therapy. Of 640 cases treated by him, 456 are cured, and no recurrences have taken place in 130 cases, though five years have elapsed since they were discharged.

Tuberculous lupus of the face is discussed by Leredde and Pautrier (Derm. Zeits., Bd. DX., Hf. 2), who have treated forty-three patients. After giving the technique employed, they conclude: Phototherapy gives the best results of all present methods, and is the only method with a regular effect. It gives the best cosmetic results, with which scarification alone can compete. It is quite painless, and the duration can be diminished by combining with it other methods.

TREATMENT OF LUPUS BY RADIUM.

This is the newest method that has been tried, especially in France.

Hallopeau and Gadain (Annales de Dermatologie et Syphiligraphie, July, 1902) have shown a patient with verrucose lupus much improved under this new substance. It was left in contact with the tissues for seventy-two hours, causing an ulceration lasting fifteen days. Other ulcerations persisted for six months, and this would seem to be a serious drawback to the employment of this method.

The rays seem to be a mixture of cathode and X-rays. Both articles will prove interesting reading to all now working in those newer fields of light therapy.

DERMATITIS MEDICA-MENTOSO DUE TO CALOMEL.

Charles Townshend Dade in Medical Review of Reviews for July 25th, 1902, reports the following: "In view of the marked difference of opinion among dermatologists as to whether mercury taken internally will produce an eruption, Dr. J. B. Shelmire's report of a case (American Medicine, June 7th, 1902) is of interest. He reviews the testimony of many experts for and against the proposition, but the array he finds in favor of mercury given internally producing an eruption, in certain persons, inclines him to place his patient among the number afflicted. On September 25th, 1901, I was called to see Mr. Dallas, aged forty, weight one hundred and eighty pounds. He is a fine specimen of physical development. He has always had excellent health. His chief ailment has been several attacks of a severe and extensive erythematous eruption. In late years, after careful observation, he has associated this with the ingestion of calomel. His first experience was eight years ago. At this time he used mercurial injection, one application, on pubes and adjoining regions, to rid himself of crab lice. This was followed by a severe dermatitis of these parts and extended some distance up the sides of the body far removed from the parts annotated. Between this time and 1896 he could recall three attacks of erythema following the ingestion of calomel. In 1896 he had quite a severe attack, which confined him to bed for several days. This was the only attack in which there was formation of crusts and scaling of the skin. He was taking light fevers before the attack and was not taking any other medicine. Two weeks after this attack, noticing his tongue was slightly coated, he took calomel again. This time the eruption appeared within twelve hours. It was of a deep red color, smooth and shining. It was accompanied by more of a burning than an itching sensation. At this time he spoke to his physicians as to the probability of calomel causing the eruption. They assured him most positively that the eruption was an eczema and could not be caused by
the calomel. In 1897, on his way to New York, the eruption promptly followed a five-grain dose of calomel. Although covering the greater part of the body it had nearly disappeared before he reached that city. He consulted a dermatologist, who informed him that the mercury could not have caused the eruption. The patient, however, was so firmly convinced to the contrary that he resolved not to take any more calomel. He was faithful to this resolution for four years, and during that time had no eruption on his body. About the middle of last September he felt that his liver was not functioning properly and began to take different medicines. Not getting the desired relief, he debated with himself and wife the question of taking calomel again, and finally took a five-grain dose. Within twelve hours the eruption appeared. I saw him about sixteen hours after its inception. The entire abdomen and chest, most of the back and the greater portions of the arms and legs were covered with a deep red, smooth, shining eruption, erysipelatous in appearance. The patient complained of an intense burning and stiffness of the skin. The itching was not so annoying as the burning. The skin felt warmer than usual, but the temperature was not above ninety-nine. Pulse normal. Within twenty-four hours the eruption began to fade, and disappeared within six days without any scaling. During the past eight years this gentleman has had eight attacks of this eruption, and each time following the use of mercury. He was questioned closely, and he assured me he had not taken mercury in any form except at these times.”

“Additional Note.—Mr. A. promised me that he would at some convenient time have me give him mercury and watch the results. He either could not find the time or summon the necessary courage for the experiment, but an attack of lumbago furnished the desired opportunity to test the drug. On February 22nd, he telephoned his family physician, one recently employed, and who knew nothing of his idiosyncrasy, that he was suffering from pain in the back, and requested that he should send a prescription. Six powders were ordered, each containing one grain of calomel. A powder was taken at 2:00, 4:00, and 6:00 p.m. At 7:00 p.m. he felt a peculiar but familiar pricking of the skin. He immediately telephoned to his physician to ask if there was calomel in the powders. On learning that there was, he took salines freely. On the following day the rash was out in all its severity. I was called in on Monday, the second day of the eruption. The entire body was covered with an erythematous rash. There was some thickening of the skin. The arms were involved to the elbows and the legs to the knees. No eruption appeared on the exposed surfaces. As before, the eruption was attended by a burning rather than an itching sensation. I saw the patient but once. He was able to keep at his place of business, but the eruption did not entirely disappear for several days.”
On entering upon our term of service, the editors elect are conscious both of the advantages and disadvantages of taking up a line of work at the point where an exceptionally able predecessor has laid it down in flourishing condition. It is to be expected that the JOURNAL will, under the circumstances, feel the change of head to its disadvantage. Fortunately, however, for all concerned, in matters editorial the good that a man does lives after him at least for a time, in the form of sound foundations for defined policy (purpose), fair spirit and strong contributing support, which are so largely the fruit of past labor. Upon the present inheritance we enter with satisfaction to ourselves but with diffidence towards you whom we are privileged to serve:

1. The foundations of the JOURNAL's purpose were fairly definitely laid down fifteen years ago on the formation of the society of which it is the official organ, and since that time the aim of its editorial heads has been to build a substantial structure upon the original sound foundations rather than to do anything in the way of reconstruction. It is the desire and purpose of the new management to fulfil the purpose of the old and, if there be building to be done, as it is hoped there may be, it will be done upon the old sound walls or by way of harmonious extension. To voice the best work and highest aspirations of Christian medical missions in the East; to be a strong bond of sympathy and fellowship periodically drawing the units together; to be an active stimulus to better work, both evangelical and scientific; to report progress, spread news, discuss methods, centralize thought and redistribute the same and to make record of scientific doings and discoveries, both here and abroad—in a word, to be the medium by which the Society as a body helps the individual and the individual helps the body, and to be the witness of our corporate vitality,—this, as in the past, is to be the future policy of the JOURNAL.
2. By the spirit of a periodical is understood the prevailing attitude of the same toward the world in which it lives, its natural reactions to external stimuli. If we were speaking of the same in a man we should probably use the word character, but that word as applied to a periodical, means something altogether different. Spirit is the correct word in this case.

There is no portion of our inheritance that we enter upon with greater satisfaction than the spirit of the JOURNAL as exhibited in its issues to the present time. Owing to the character of the retired editor (our honored President), to the Christian principles of the contributing body, to the scientific spirit of our truth-seeking profession, and to the harmony of Christian life, apart from theological theory; owing to a combination of these forces it has proved possible for the JOURNAL to develop a spirit which, at least, as to fellowship and tolerance, is rarely surpassed in journalism. We would have this spirit live and grow into the future. We would have such relationships exist between editors and contributors, between these and our readers, and between all and the world at large, that truth seeking and free discussion may be combined with gentle manners and tolerance, and strictest criticism be made helpful and acceptable.

And we would add in this connection that, in your service, the editors desire and invite your thorough criticism of their work, and though we expect you to be prompt to forgive our mistakes, we do not desire you to overlook them until we correct them, neither shall we intentionally overlook your mistakes until the same time.

3. In our last issue attention was called editorially to the necessity for strong contributing support if we are to have a magazine which will be to us all that the JOURNAL is intended to be, a magazine thoroughly representative of our work and efficiently helpful in the same; and we would add our strongest words in support of this which was evidently the ripest thought-fruit of the mature experience of Dr. Neal on laying down his editorial pen (or in this particular case, on closing his editorial type-writer,) to take up his even more honorable presiding hammer.

There is not a great number of us in the East, and few whose work is more than similar, some whose work is very dissimilar. Yet certainly there is not one of us whose thought-out experience will not add to the strength of the whole and to the efficiency of the individual. But beyond all this we are pioneers in a new country, a new land to scientific medicine, and the responsibilities and duties thereof are ours by our own act; indeed by our very presence. It is not sufficient that
we should say to ourselves, "We are too busy to record this or that experience or chance discovery." The facts of the busiest lives challenge the statement, and the jury will not acquit. The man who has the chance is the man to whom the chance becomes the duty. We are the first in the new field; there are things passing under our eyes monthly that no physician has ever seen before—of cases, types, symptoms, variations, and even diseases. Are our eyes open and do we see them? The chance is ours and so is the duty. When we see them, do we say so? The glory of giving anaesthesia to the world was won and lost by a man who saw and spoke and a man who saw and did not speak. And no excuse of work in church or hospital would ever in this world or the next have acquitted Morton of inhuman neglect had he allowed that work to interfere with his public demonstration of ether. The same duty presents itself to us in China year by year, and in years to come our profession at large and more will hold us to the chance we had and the duty done or left undone.

Are we "so very busy?" It is the Osler and the Treves who might count their minutes in gold eagles, and yet it is they who make time to see and tell the most.

But we "cannot specialize as they." There is not one of us who cannot do his whole work as well as now, and better, and yet be a specialist on some one thing in ten years' time, and, if he wish, an authority on the same. Suppose, for example, one of us should adopt the rule of getting and reading everything he ever saw on intestinal animal parasites and, while spending his usual time on all other cases, should yet never let one of these cases go by without the fullest notes, the most careful study, and the widest open eyes. How long could the dullest of us do that in China without seeing something that no one has seen before, something worth the telling?

But perhaps "we are retiring by nature," and what we do see may not be as worth the seeing as we think it, or what we say as worth the saying. Well! That is what we elect editors to decide, and the readers will be the final judges. And you may be very sure that, highly as we value good style, the JOURNAL may be trusted never to publish good style when to do so it must spend return postage on good scientific facts.

There is not one physician in China who works a year without seeing something well worth the telling, and, granted this fact, there is not one of us who does not once a year, at the least, face and perform or fail to perform a professional, intellectual, and moral duty of writing for THE CHINA MEDICAL MISSIONARY JOURNAL.

W. H. J.
There are times in the affairs of men when they ought to say something, know that they ought to say something, and yet have nothing really worth saying to say.

There are times when under the stress of extraneous circumstances the brain gets off the beaten tract and refuses, temporarily at least, to cerebrate on the old lines. We have all experienced them, and so will be able to regard with a sympathy akin to charity the mental spasms of a brother physician in this condition, especially if in the attempt to do his duty, he falls short of his editorial ideals. It is no time for platitudes; we get plenty of them when we go home, but as confession is good for the soul and keeps us as our black brothers would say from getting too “biggity,” personally the writer realizes as none of his associates possibly can, that his inexperience and comparative newness to the missionary field overbalance the desiderata of geographical location and young blood; but time will tone up the former and eradicate the latter.

C. S. F. L.

We are deeply grateful to the friends in the field who have consented to take charge of the various departments, and to those who have taken time from the never ending professional duties to write us articles or send us reports of cases or the general report of their work and progress. They are an inspiration to us all, and especially to those who are in the more isolated stations. For them as for ourselves we thank you.

C. S. F. L.

With the rebuilding of St. Luke's Hospital, the Medical Association Museum expects to enter on a new lease of life and also, let us hope, of usefulness, and the Association may be glad to know that a new room has been provided in the new building for this neglected child.

A medical museum is not like others of its kind to be gaped at, and wondered over, by the “hoi polloi,” but should be kept inviolate in the interest of research and study. Especially is this true in a country like China, where ignorance and superstition are not only ready, but willing to credit to foreign medical science most of the evil influences that human flesh is heir to. Although the museum is suffering from neglect, which has been the direct result of not having a proper place to keep it, the curator is still sanguine of being spared the pain of writing its epitaph.

/C. S. F. L.
Hospital Reports.

Forman Memorial Hospital, Yeung-kong, Kwangtung.

The people in and about Yeung-kong experienced a new sensation on October 20th, the occasion of the opening of the new Forman Memorial Hospital. The Northern Presbyterian Church has maintained mission work here for fifteen years or more. It is only within the last two or three years that a permanent out-station has been established. One former attempt was brought to an end through mob violence.

Before the troubles of 1900, the First Presbyterian Church of Jersey City, New Jersey, subscribed funds sufficient to erect a hospital. The erection was delayed by the disturbed condition of the country. This year finds one ward of fourteen beds for men, operating room, reception and other necessary rooms completed and ready for use. A ward for women is to be erected immediately.

Invitations to the opening were sent to the Christians in the city and the surrounding villages and to the officials. For several days previous to the opening all sorts of gifts were made by both Christians and officials. Notable among these were a large and handsome sign for the gate, three pairs of wooden tablets ten feet long, a large silk banner appropriately inscribed stating that spring fills Yeung-kong, and numbers of paper and cloth scrolls. The first and all of the last were from non-Christians.

At sunrise on the morning of the celebration, the inhabitants of the neighboring villages were aroused by the gongs and retinue of the civil and military magistrates who paid their respects. All sorts of interpretations were put upon action; such a thing never having happened before. The country was suffering for the want of rain, and some said the officials had come to the foreigner to pray for rain. Others said the foreigners were having some trouble and the officials had come to settle it.

The men's ward was used for the dedication service and was decorated with American and Chinese flags and with flowers and scriptural pictures. Cakes and tea were supplied for all. A feast was prepared for the officials and gentlemen.

The hour of service found the compound filled with Christians and heathen alike, curious and inquiring. It was impossible to find seats for all. Christians had come from all the villages within twenty miles of Yeung-kong. It was very gratifying to see so many gathered together. A very earnest service was held; several speakers taking part. At the close the principal magistrate was asked to formally open the gate of the hospital. The way was cleared, and accompanied by all the lesser officials he performed the ceremony. A string of firecrackers, many yards in length, cracked in celebration of the event, much to the joy of the Chinese.

The officials and others were shown through the two foreign houses and hospital which make up the compound. Most of them had never entered a foreign house before, and they were greatly interested in the spring beds, stoves, microscope, typewriter, and other modern appliances, not the least being Funk and Wagner's massive standard dictionary. The latter evidently impressed them with the fact that the foreigner is not adept at mechanics alone.

The effect of this occasion has greatly tended to break the ice between
the better classes and the foreigner. This has also spread in a greater or lesser degree to the lower classes. While there may have been an element of compulsory politeness on the part of the officials through imperial edicts, still their kindliness and personal choice in appearing in full official robes with attendants apparently meant a great deal. The gentlemen were evidently pleased and spoke kindly. These latter govern the feelings of the people a great deal more than the magistrates who are outsiders.

The news that the civil magistrate had personally performed the ceremony of opening the gate of the hospital, was spread all over the city and surrounding country. That one fact alone has greatly raised the hospital and the foreigner in the estimation of the people.

Patients were admitted on the day following the ceremony. Four or five operations have been done and with apparently good results. From present appearances there will be more patients than one ward will accommodate.

Owing to the lack of rain, the patience of the people has been severely tried. Though we have been accused of preventing rain, still God has given us favor with them thus far.

W. H. Dobson.

St. James' Hospital, Ngankin. St. James' Hospital of the American Church Mission, Ngankin, China, completed its first year of service on October 2nd, 1902. As the only hospital in the capital of the province and in a district some two hundred miles square, it has naturally met an urgent need. The new hospital buildings were erected at a cost of $5,000.00 Mexican, and consist of a main two-story building with commodious dis-

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pensary facilities, operating room, etc., on the first floor, and a large men's ward, with several private rooms, upstairs, besides which it includes a small detached two-story building which is used for women patients. Externally the architecture is strictly oriental, but the internal arrangements are all Western. The hospital with its imposing gateway forms one of the features of the city. It is situated on one of the best streets, at the very centre of population, and is on the same compound with the other work of the Mission.

The statistics for the year just ended are as follows:

**Out-patients:**

New cases (male, 2,768; female, 507) ...
Old ... ... 3,275

Total, 10,040

**In-patients:**

(Number of beds 30.)

Male ... ... ... 274
Female ... ... ... 38

Total, 312

**Out-visits** ... ... ... 45

**Operations:**

Under anesthesia ... ... 348
Without ... ... 697

**Local Receipts:**

Entrance fees ... ... $552.28
Medicines sold ... ... 225.26
Board of patients ... ... 613.54
Medical fees ... ... 228.00
Donations ... ... 326.00

Total, $1,943.08

**Current Expenses** ... ... $2,268 82

**Medical Students, training in English** ... 4

Physician in charge:—EDMUND LEWIS WOODWARD, A.M., M.D.

**Chang-poo Medical Mission.** The following statistics have been furnished and will prove of interest to our readers:

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<table>
<thead>
<tr>
<th>Statistics, 1901-1902.</th>
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<tbody>
<tr>
<td>Number of medical missionaries ... 2</td>
</tr>
<tr>
<td>Students ... ... ... 12</td>
</tr>
<tr>
<td>Beds ... ... ... ... 100</td>
</tr>
<tr>
<td>In-patients, male ... ... ... 914</td>
</tr>
<tr>
<td>Do. female ... ... ... 132</td>
</tr>
<tr>
<td>Dispensary patients, male ... ... ... 2,558</td>
</tr>
<tr>
<td>Do. do female ... ... ... 535</td>
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<tr>
<td>Patients on itinerations, male ... ... ... 3,069</td>
</tr>
<tr>
<td>Do. do. female ... ... ... 1,494</td>
</tr>
<tr>
<td>Patients at home, male ... ... ... 86</td>
</tr>
<tr>
<td>Do. do. female ... ... ... 68</td>
</tr>
<tr>
<td>Total patients, male ... ... ... 2,644</td>
</tr>
<tr>
<td>Do. female ... ... ... 603</td>
</tr>
<tr>
<td>Total attendances ... ... ... 6,117</td>
</tr>
</tbody>
</table>

Operations: General, 399; eye, 99; obstetric, 7; dental, 400.

Local income: Sales and fees, $554.12; foreign donations, $133.92; native donations, $8.23.

Local expenditure, $1,245.93

**Amputations.**
- Foot, 1, for gangrene,
- Leg, 1, for malignant ulcer,
- Finger, 2, for whitlow,
- Penis, 2, for carcinoma.

**Bone Operations.**
- Femur, caries, scraping, 1.
- Tibia, sequestrotomy, 6; scraping, 2.
- Lower jaw, sequestrotomy, 5; scraping, 1.
- Bones of foot, scraping and gouging, 1.

**Abdominal Operations.**
- Ovarian cyst (multilocular), removal, 1.
- Appendicitis, opening and draining abscess, 4.
- Intra abdominal abscess, between transverse colon and stomach, opened and drained, 1.
- Perinephric abscess, opened and drained, 1.
- Pelvic abscess, opened and drained, 1.

**Bladder and Scrotum.**
- Supp. in scrotum, drained, 2.
- Elephantiasis scroti, removal, 1.
- Calculus in bladder, suprapubic lithotomy, 1.

**Joint Operations.**
- Knee, supp. synovitis, drained, 3; aspirated, 2.
- Wrist, supp. synovitis, drained, 1.
- Knee, chronic synovitis, aspirated, 4.
- Shoulder dislocation reduced, 1.

**Rectal Operations.**
- Fistula in ano cut, 36.
- Int. hemorrhoids tied and most of them cut away, 16.

**Operations, Various.**
- Thiersch grafting of ulcers, 18.
- Removal of bullet, 1.
- Excision of varicose filarial glands, 1.
- Repair of hardclip, 2.
- Stricture of urethra, dilatation, 3.

**Growth.** (New, all removed.)
- Simple:—
  - Cyst over hip, 1.
  - Myeloid tumour of tendon sheath, 1.
  - Papilloma, 2.
  - Cystic fibroid, 1.
  - Sebaceous cyst, 2.
  - Fibroma, 2.
  - Lipoma, 1.

**Malignant:—**
- Scirrhus of breast, 1.
- Epithelioma of penis, 2.
- Epitheliomatous ulcer of leg, 1.
- Epithelioma of scalp, 1.
- Fibroid of paget, 1.
- Rodent ulcer, 1.

**Other General Operations.**
- Abscesses, etc., 263.

**Eye Operations.**
- Cataract, simple extraction, 23.
- Needle, 3.
- Combined operation, 1.
- Entropion, 36.
- Peritomy for pannus, 5.
- Pterygium, usual operation, 9.
- Paracentesis for hypopyon, 5.
- Iridectomy, 3.
- Other operative measures, 14.

**Obstetric Operations.**
(Outside of hospital.)
- Obstructed labour, child dead, craniotomy, 2.
- Impacted occipito posterior presentation, child dead, 1. Mother dying. Craniotomy and extraction (mother died twenty minutes after delivery from shock and exhaustion).
- Adherent placenta removed by hand, 4.

**Chloroform administrations, 186.**

**Cocaine for general operations (eye operations not counted.)** 7.

**Kêlêne administrations, 5.
Correspondence.

Dear Editors: I send a photograph of the David Gregg Hospital for Women, Canton, China, in answer to Dr. Peake's request for suggestions for hospital buildings. Possibly it may help a little.

I have no halls. From every room one can instantly step upon a verandah.

In regard to the woman's hospital at Lien-chow, Mrs. Machle says: "The buildings are situated opposite the hospital for men, in charge of Dr. Machle, and are all enclosed by a wall." From this I inferred Dr. Chestnut had the woman's department of the Lien-chow hospital. I beg the hospital's pardon for calling it a ward.

Mary H. Fulton.

Editors Journal: We used the individual communion cups last Sunday, November 16th, for the first time in our Peace St. Church, Foochow city.

It has been in my mind for more than two years to introduce this sanitary reform in our churches, but press of other work has hindered. We went so far as to get the set ready for our union communion service at our annual meeting, so making it an object lesson for our whole Foochow field.

We had six trays made of hard wood with shallow circular depressions to receive the bottom of the cup. We plan to have them lacquered with the white enamel used at home for bath tubs. We used white China cups, considerably smaller than the ordinary wine cups. They are sold here as children's toys.

Each tray held fifty-four cups, the size of the trays.

We prepared for three hundred, but some of the delegates and other friends returned home before Sunday, so there were only about 250 communicants.

The cups were distributed and collected in six minutes, and although it was the first time of using them, there was no trouble or confusion. We have decided that the best way of collecting them is for the deacon to receive them upon the tray as he walks back, after having distributed them to all in his isle. We cannot have the little brackets on the backs of the pews as they do at home, as our seats have movable backs for use in Sunday School.

As soon as it was proposed to the pastor and deacons of Peace St. Church they acquiesced most heartily. We have heard no objections from any one. We heard several say, "Very good, much cleaner."

We are very glad that our Chinese friends were able to make the change so willingly and intelligently. Especially are we glad for this, since we heard that although at home the individual cups are now used in more than 1,000 churches, in every case a good deal of opposition has been encountered on the part of the church members.

Have we not been remiss as physicians in being so slow to urge upon the churches of China this necessary health measure? I, for one, plead "guilty."

The Pathological Society of Rochester, N. Y., in a meeting held December 7th, 1893, passed resolutions explaining the danger of communicating disease by means of the communion cup. Perhaps they were aroused to the importance of this matter by the fact that an outbreak of diphtheria among twenty-four families in that city, reported on officially by the
health officer appointed to determine its origin, was traced back to a school drinking-cup. It is easy to see that there is the same danger from the communion cup.

It is nine or ten years since the individual communion cups were used for the first time in America in the Central Presbyterian Church, Rochester, N. Y. That church has 2,000 members. Rev. Henry H. Stebbens, D.D., is pastor.

KATE C. WOODHULL,

FOOCHOW, November 21st, 1902.

DEAR EDITORS:—The retiring editor of the Journal asks if we will not try to help you now.

We wish to, but what will help and what hinder, may be a vexed question to settle.

As to my own work, it seems so ordinary; it never occurs to me it can be interesting to others.

The other day a rather unusual case was brought into the hospital. It was a child one day old. From the mouth protruded a tumor the size of a duck's egg.

The mouth was so widely opened I feared dislocation of the lower jaw.

Without chloroform, after an incision in the tumor to allow the escape of fluid, thus giving me more room in the mouth, I excised the tumor from the right posterior part of the roof of the mouth.

It contained half an ounce of clear, glaring fluid in the upper half. The lower half, separated by a muscular septum from the upper portion, was smooth and firm. There was little hemorrhage after the incision, and this controlled by pressure.

The jaw was not dislocated, but the child would not nurse. The lips seemed paralyzed. For several days it was fed from a spoon—milk poured into its mouth.

This, the eighth day, the mouth is almost closed, and it was able to nurse for a few moments.

The mother appears very happy. She had been married ten years, and this is her first child. This accounts, I think, for its spared life, notwithstanding it was an emaciated girl and so repulsive in appearance.

Perhaps others have seen such cases. I never had in one so young.

M. H. F.

CANTON, October 25th, 1902.
MARRIAGES.


November 18th, at C. I. M., Shanghai, in the presence of Consul-General John Goodnow, by the Rev. F. A. Steven, Rev. Frank Arthur Keller, M.D., Chang-sha, Hunan, to Ellen Elizabeth Tilley, both of the C. I. M.

BIRTHS.

October 10th, at Hanyang, the wife of Dr. George A. Huntley, A. B. M. U., of a son (Frank Livingstone).

October 17th, at Kuling, the wife of Dr. Howard G. Barrie, C. M., of a daughter (Winifred Agnes).


November 9th, at Tainan, Formosa, the wife of Dr. James L. Maxwell, E. P. M., of a daughter.

DEATH.

December 2nd, at Wei-hai-wei, Robert, infant son of Dr. J. Norman Case, aged eleven weeks.

ARRIVALS.

October 7th, Dr. T. C. Brander and Dr. L. Learmonth, returning, I. P. M., Manchuria.

October 23rd, C. E. Tompkins, M.D., and wife, A. B. M. U., Szech'uen.

October 26th, F. O'Donnell, M.D., and Dr. C. W. Service and wife, C M. M., West China.

November 10th, Dr. F. F. Tucker and wife, for A. B. C. F. M., North China.

November 17th, Dr. J. F. Griggs and wife, for A. P. M., Peking.

December 1st, Dr. M. R. Charles and wife, M E. Mission, Wuhu.

December 13th, Dr. J. H. Beam and wife, for the Reformed Church Mission, Yo-chow, Hunan.

DEPARTURE.

December 6th, Dr. G. W. Guinness, C. I. M., for England.
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"SUBLIME TOILET" (Unscented), in Boxes containing 6 Tablets.
"SUBLIME TOILET" (Scented), in Boxes containing 6 Tablets.
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