The China Medical Journal.


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(Both figures drawn from life to same scale.)

Adult of Fasciolopsis Rathouisi.  Adult of Fasciolopsis Goddardi.
FASCIOLOPSIS BUSKII, F. RATHOUISI, AND RELATED SPECIES IN CHINA.

By Henry B. Ward, The University of Nebraska College of Medicine.

In 1843 Dr. Busk discovered a parasite which he took from the duodenum of a Lascar sailor who died in the Seamen's Hospital in London. Lankester (1857) published the original description of this parasite, which he named Distoma Buskii. It appears that the discoverer objected to this appellation, and in consequence when the specimen was later described by Cobbold (1860) he gave it the name of Distoma Crassum, a name which had been preoccupied by von Siebold in 1837 for another species of distome. Moreover, preference has no influence in scientific nomenclature, and the original specific designation must stand. Of the original specimens the majority have been lost. One which was given to Leuckart is figured in his work (1863:586). A second is preserved in the museum of the Middlesex Hospital, London, and a third in the museum of the Royal College of Surgeons. The others are in the museum at King's College, making in all only five type specimens in existence.

The second and third cases of the occurrence of this parasite were recorded in 1873 by Leidy, to whom the material was sent by Dr. J. G. Kerr, a missionary physician in Canton. Two others under the date 1875 are reported by Odhner (1902); the sixth case under date of 1878 by Cobbold (1879), and the seventh case under date of 1890 by Odhner (1902). This last author made a careful study of the structure of the species, which meanwhile had been assigned to the new genus Fasciolopsis by Looss (1899), and to him we owe our first accurate data.

*Presented at the Sixth Annual Meeting of the American Society of Tropical Medicine, held at the U. S. Naval Medical School, Washington, D. C., April 10th, 1909.*
with regard to its morphology. I have found references to cases since that date in India of which the record is inaccessible to me, and in China, reported by Heanley (1908). In addition to these Looss (1907) has examined about a dozen specimens from Hongkong, which are now in the museum of the Liverpool School of Tropical Medicine. According to Heanley these came from the pig. Finally Goddard (1904:196) reports two cases from China.

From correspondence with Dr. W. H. Jefferys, of Shanghai, China, who cites the opinions of others as well as his own experience in China, it seems clear that this species is far more abundant and of much greater importance than has hitherto been believed. I have myself received specimens from Dr. Jefferys, and can confirm the reports of Odhner and Looss with regard to its morphology. The characters of the genus and of the species may be outlined as follows:—

**Fasciolopsis Looss, 1899.**

Fasciolinae without anterior region clearly set off from rest of body. Cutícula smooth. Acetabulum powerfully developed with cavity extended posteriad as sacculate invagination and much larger than oral sucker. Intestinal crura simple, slender, wavy, but without evaginations. Testes dendritic with branches growing smaller towards distal ends. Cirrus pouch very long, cylindrical, containing spiral tubular seminal vesicle with peculiar caecal appendage. Cirrus closely covered with fine spines. In alimentary canal of mammals. Type species *F. Buskii.*

**Fasciolopsis Buskii Stiles, 1901.**


Length 24 to 45 mm., or even 75 mm. (Busk), usually about 30 mm.; breadth, 6 to 16 mm., usually 10 to 12 mm., maximum thickness 1.5 to 4 mm. Body moderately elongated, nearly regularly oval, ventral surface flattened, skin without spines.* Oral sucker 0.5 mm. in diameter, completely ventral; acetabulum separated from anterior end by about its diameter, 1.6 to 2 mm. with deep triangular lumen extending caudal. Pharynx large powerful, prepharynx present. OEsophagus very short, intestinal crura slender, extending to posterior end with two characteristic curves towards the median line, one at centre of body, the other between the testes. Genital pore immediately anterior to acetabulum. Cirrus sac cylindrical, median, prominent, extending from acetabulum about half way to shell gland.

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*Odhner and most others say the cutícula is without any sort of armature, but Heanley states most positively that it has spines, whether taken from man or pig, although they are very difficult to find in some mounted specimens.*
Testes, dichotomously dendritic, posterior to transverse yolk duct and in median field, one behind the other. Germarium small, dendritic, just anterior to transverse yolk duct on the right side. Laurer's canal present, but receptaculum seminis wanting. Uterus in irregular open coils anterior to ovary. Vitellaria well developed with minute acini, extending from acetabulum to posterior end, where they merge, although the band is nearly interrupted at the posterior end in the median line. Eggs very thin shelled, 120-130\(^{\circ}\) long by 75 to 80\(^{\circ}\) broad, with minute operculum and finely granular contents. Development unknown.

Parasitic in the duodenum of man in India, Siam, China, Assam, and Sumatra, according to various authors. Very common in South China pigs (Heanley).

The presence of this parasite is said to be accompanied with high temperature (to 106\(^{\circ}\) F.), bloody diarrhoea, emaciation, tympanic abdomen, edema, in general typhoid symptoms. Several of the cases have terminated fatally, owing in part at least to the late date at which treatment was sought. Calomel, thymol with castor oil or salts, and eucalyptus oil have all been used with success to expel these parasites.

It is important to note here the various records concerning the occurrence of this species in the United States, which are to be found in the literature. The first of these is given on the authority of Leidy (1891), where the parasite is listed under the name of Distomum crassum. As early as 1873 in fact he reported the specimens which in this later paper he places in the species named. The material, as already noted, came from Dr. J. G. Kerr, of Canton, China, and was vomited by a Chinese boy. A girl of English parents in Canton is also recorded as having passed the same parasite from the bowels. While first recorded in our literature, it should be noted that the parasites were not obtained on this continent, but were sent here for determination merely. These are the only specimens which Leidy reported from the human host.

In the same paper and immediately in connection with these specimens of D. crassum from man, Leidy also records that he had received specimens of this parasite from New York, Arkansas, and Texas, where they were found in the liver of a doe (N. Y.) and of cattle (Ark. and Tex.). Although Leidy says these specimens preserved in alcohol "appear to be identical with D. crassum," and though they have frequently been recorded under this name, yet they do not actually belong to the species under consideration. The forms in question were in reality Fasciola magna, a species which is now well recognized as a parasite of American herbivora.
On the other hand, the probable introduction of *F. Buskii* from the East, which I predicted in 1903, has been demonstrated in the discovery of a case by Moore and Terrill (1905). The specimen was removed at the necropsy of a Lascar sailor from an English steamer, who died at Galveston, Texas, of typhoid fever. This is the only record of the species for this continent so far as I can ascertain. With regard to their record of the parasite I wish to call attention to one error, which may be the cause of some confusion if not corrected. These authors give the average size of the ova as 150 and 75'. If the magnification assigned to their microphotographs is correct not even the largest reaches this length, and the actual size agrees closely with the measurements of Looss cited above. A similar error has been made in the case which Goddard has recently (1907:195) reported from China; the material was referred to a committee, and that part of the report of the Investigation Committee which deals with the eggs reads as follows: Eggs (possibly immature). Size not measured, about a half that of *Ascaris lumbr.* Shell, very thin walled. Contents clear, small and granular, well marked nucleus in centre. Nearly spherical. No operculum observed.

An error is certainly present here, for the size of these ova would equal only 40'' to 45'' by 25'' to 30'' on the basis they give in their estimate. This is far too small for *Fasciolopsis Buskii.* If one infers that the proportions relative to *Ascaris lumbricoides* are by accident reversed in their statement these ova would approximate 130 to 150'' by 100'' to 116'', and this again fails to agree with the species *F. Buskii,* to which they assign these specimens. In fact the designation "nearly spherical" which they use to characterize the ova, cannot by any means be applied to the figure which Looss gives of ova in *F. Buskii.* Renewed investigations alone can tell whether the authors are in error as regards their measurements and description or with respect to their identification of the species.*

Recently Barrois and Noc (1908) have reported this species as frequent in Cochin China. Among 133 Annamite prisoners, coming from various provinces, 16 were found, on systematic treatment with thymol, to be carriers of *F. Buskii.* In thirty-six autopsies, however, not a single case of infection with this species was discovered. Among the sixteen cases infected the flukes were solitary in five instances; three parasites were present in each of three cases; four, five, six,
seven, and twenty-four parasites were found in one case each, and finally even thirty-six flukes in one case. It is worthy of note that Barrois and Noc think this parasite of little or no consequence unless present in large numbers. In this opinion they are at variance with other observers, whose opinions are already cited.

These authors also record the size of the parasite as 25 to 70 mm. in length by 6 to 12 mm. in breadth and 1.5 mm. in thickness. It is longer, they continue, than *Fasciola hepatica*, of which it has not the leaf-like form, but may be most easily distinguished at a glance by its considerable thickness. As regards anatomical details they merely confirm in general the description of Odhner (1902) with the difference that the ovary and shell gland, in place of being situated at the middle of the body as he indicates, are located about at the union of the anterior and middle third of the body.

In 1887 Poirier described as *Distoma Rathouisi* a new human parasite from a single specimen sent him from China by the Reverend Father Rathouis. According to the record the fluke was passed by a Chinese woman, thirty-five years of age, at the mission Zi-ka-wei. The woman had suffered long from hepatic pains, which were not amenable to treatment. Hence Poirier concludes that the specimen came from the biliary ducts. Poirier gives an extended description of the anatomy which he compares in detail with *D. hepaticum*, the well-known liver fluke, common through Europe in sheep and occasionally also found in man.

For twenty years after its discovery and description Poirier's species was not reported again. Many authors, among whom Leuckart, only need be noted, inclined to the view that it was identical with *Fasciolopsis Buskii*, originally reported from India. When the latter species was carefully studied by Odhner his work showed that the two forms were in all probability not identical. A careful examination of the records also indicated to me their evident relationship. Accordingly in a revision of human trematode parasites I (1903) included Poirier's forms as a distinct species in the genus *Fasciolopsis*. Of Odhner's most recent paper (1909) I shall speak later.

Recently Goddard (1907) reported from Shaohsing, China, two cases of its occurrence. In the first, a woman forty-two years age, there was a mixed infection with *F. Buskii*. After the administration of eucalyptus oil, chloroform, and castor oil, specimens of both parasites were passed on three successive days. The patient was greatly emaciated, and treatment was delayed so long that she died. An autopsy was impossible. In the second case, a boy six years old, the
eggs were found in the feces, and administration of eucalyptus oil, as before, brought away many parasites at intervals of two or three days. Two weeks later two specimens were vomited. The patient is still under observation.

According to Goddard the parasite is common in that region and is thought usually to cause death. The cardinal symptoms are enlarged abdomen, diarrhoea, wasting, and occasionally jaundice. The stools are usually light yellow in color and of a peculiarly offensive odor. Goddard observed under the microscope groups of bile-stained cells resembling lives cells; sometimes with no definite outline, sometimes three or four lobules held together by the enclosing net work of fibrous tissue. Yet he observed no symptoms of liver involvement. Other cases of the disease are under observation.

The specimens from these cases were submitted to Drs. J. L. Maxwell and W. H. Jefferys, of the Research Committee, who say that the specimen appears to be _Distomum Rathouisi_, though the description of this worm on record differs in some particulars from their observations. They had at the same time specimens of _Fasciolopsis Buskii_ from the other case and note emphatically that they "dissent altogether from the statements of Schube that these two distomata are varieties of the same worm. In our specimen their form, size, and consistency differ in many particulars." The ova are important factors in determining a parasite fluke. Goddard's account of these structures is as follows: The eggs of the _D. Rath._ are about two-fifths of the microscopic field under a one-sixth inch objective and one inch ocular, have a thin shell and appear to possess a hyaline body moderately well filled with coarse granules of a greenish yellow tint (? in fresh feces). These eggs were present in both cases reported (one was a case of mixed infection with _F. Buskii_, and the figures given in this report show a difference in size of the ova).

The report of the Investigation Committee, to whom these specimens were submitted, is given in the same paper (Goddard 1907:198). The description of the ova reads thus: Eggs, oval, size not measured, about one-third larger than _Asc. lumbric._ Thin walled and smooth with very small operculum. Contents appear to consist of large granules.

I have discussed the records of this species in a recent paper (1908). "From Goddard's account the size of the ova may be estimated as approximately 100-115" by 65-75". Such an ovum would be very much smaller than that described by Poirier for his _Distomum Rathouisi_. The Investigation Committee notes in its report some doubt as to the correctness of the identification, and the doubt is emphasized.
by this discrepancy in the size of the ova. Further study of these forms is needed to establish their true character."

Since writing the above account through the great kindness of Dr. Jefferys, I have received three specimens of this parasite, of which he writes:

"The other worm, of which I can spare you two specimens is less certain. Maxwell (Tainan, Formosa) believed it to be Distomum Rathouisi, and I think it possibly is so, though I felt doubtful as he, too, does now. If the testicles of Distomum Rathouisi are right and left, then this is not that worm. Otherwise it corresponds to such descriptions as given in Braun, for instance. Anatomically it is much like Fas. Buskii and appears in the same patients at times. There are these few differences: it is shorter and thicker in proportion, and this factor is constant, that is, if the stool has both kinds of worms, it is easy and simple to place each worm present in one or the other group. It is more regularly oval and does not have wavy edges or lean to one side. (See also Goddard's report) As you know, there has always been a doubt as to whether or not these two worms are the same or different. Personally I am inclined to believe they are the same and that the original description of Distomum Rathouisi was faulty with regard to the position of the testicles. Possibly a difference in date of infection might account for the difference in size, but why can we not have a large breed of worms and a small, as a large breed of horses and a small?"

Again in October, 1908, Dr. Jefferys sent me another lot of the same species; there were nine specimens, which he writes were obtained by Goddard, but gives no further data. At the same time he sent a batch of five flukes labeled "Probably Rathouisi also, passed with last. Seem different to naked eye. Have just acquired and not cleared any yet."

From this material I have been able to make an extended study of this species. The original description of Poirier is in error at many points, but this is not strange in view of the fact that he only had a single specimen at his disposal. The results of my work may be summed up in the following specific diagnosis.

FASCIOLOPSIS RATHOUISI WARD, 1903.
Syn. Distomum Rathouisi Poirier, 1887.

Length 15 to 19 mm., breadth 8.5 to 10.5 mm., thickness up to 3 mm., shape bluntly oval or elliptical, with short cephalic cone, sharply marked off from body in profile aspect only and usually bent ventrad and even slightly posteriad. Alcoholic specimens light grayish brown, sometimes darker. Usually flexed with dorsum concave and

*It is interesting to note how the observer after having noted and recorded clearly the differences in external appearance between the two species is led at the close of his report to question their specific identity on the basis of an argument often advanced and very specious, yet thoroughly fallacious. The fallacies of this argument are so well exposed by Looss in various papers (1899, 1907, et alia) that it would not be profitable to go into them here. I have myself recently (1908) discussed the question with especial reference to the ova and have shown some of the errors which have followed in the past from the assumption of a position such as suggested by Dr. Jefferys. Closely related species of flukes are continually interchanged and the errors in determination resulting therefrom have led in the past to great confusion.
edges only very slightly crenate, if at all. Oral sucker small, subterminal 0.25 to 0.29 mm. broad by 0.2 mm. in antero-posterior diameter, with cavity looking ventrad, separated from ventral sucker by about twice its own diameter. Acetabulum 1.32 to 1.38 mm. broad by 0.68 to 0.7 mm. in antero-posterior diameter. Oesophagus almost lacking. Internal organs much as in *F. Buskii* except in detail. Some more prominent items noted here. Intestinal crura somewhat more irregular and probably with more and more pronounced curves. Cirrus sac not conspicuous as in *F. Buskii*. Testes more compactly branched, broader and denser than in *F. Buskii*, posterior to transverse yolk duct and in median field. Contrary to the report of Poirier they lie one behind the other. Germarium on right side, small, coarsely branched. Uterus in broad, heavy, closely grouped coils, anterior to ovary. Vitellaria outside of intestinal crura from about level of acetabulum to posterior end, where they merge without indication of interruption. Masses of acini also drift over intestinal crura towards centre of body at several places. Eggs oval, thin shelled, with delicate operculum.

Concerning *F. Rathouisi* in China and its effect on the host Goddard (1907) writes as follows:

This parasite, known to the Chinese as Siau San Dzoong, is quite common here and is thought usually to cause death, because the Chinese remedy is so obnoxious to the patient that the parents (for patients are usually children) are too sympathetic to make them take it. The cardinal symptoms are enlarged abdomen, diarrhoea, wasting and occasionally jaundice. The appetite is usually preserved. The cause is supposed to be the excessive eating of aromatic foods, such as peanuts, or more especially the eating and drinking of all kinds of things at all kinds of times, thus preventing digestion. This produces the worm, so say the Chinese. I am inclined to think the egg may be carried on uncooked vegetables or raw fruit, but thus far have failed to find it.

The relation of this disease to the liver is interesting. The stools are usually light yellow in color and of a peculiarly offensive odor. Under the microscope I have found groups of bile stained cells resembling liver cells; sometimes with no definite outline, sometimes three or four lobules held together by the enclosing network of fibrous tissue. Clinically I have observed no symptoms of liver involvement.

Several other cases of this disease are now under observation and will be reported later on.

To the original case reported by Poirier may be added the two noted by Goddard, and one, sent me by Jefferys in 1908 as noted above, which also comes from Goddard. Two of these are mixed infections; the one of Goddard (1907) being complicated by *F. Buskii* and the last case noted having, as Jefferys writes, another form, of which more later.

Within a very short time I have seen a paper by Odhner (1909), in which after an examination of Poirier's original specimens from the
Paris museum, he endeavors to demonstrate that D. Rathouisi represents a contracted specimen of F. Buskii. He rightly points out some errors in the original description of F. Rathouisi, which include some items given in the above synopsis, and yet I cannot possibly share his conclusions. Several good observers in China, among them Jefferys, Goddard, and Maxwell (v. a) note the differences in the appearance of the living specimens. They are equally easily distinguished in the alcoholic material. The form differs radically and is constant. The surface is not wrinkled as it would be if noticeably contracted; there is a sort of cephalic cone here which is absent in F. Buskii. The uterine coils are more frequent and more filled with ova. The acini of the yolk gland are more numerous and somewhat differently distributed. The suckers are not precisely alike in size, though more nearly so than indicated in Poirier. In short the differences, while slight, are sufficient to constitute the two forms of different specific rank, and F. Rathouisi is undoubtedly a good species.

Among the specimens forwarded to me by Dr. Jefferys in October, 1908, were five, which he noted as being different to the eye from F. Rathouisi, although they were passed with the batch of that species sent me at the same time. They were somewhat larger than F. Rathouisi, measuring 21 to 22 mm. in length by 9 mm. in width. The general aspect is of a larger and slenderer worm, and the light yellowish gray color of the alcoholic specimen enables one to pick them out at a glance. At first thought they appeared as transitional forms between F. Rathouisi and F. Buskii and likely hence to establish the identity of those two forms which has been maintained, but further examination revealed the improbability of this view. The oral sucker is somewhat smaller, the testes different in form and the uterus much more closely coiled. Even if one may suppose that all of these differences are produced by varying contraction, there yet remains a conspicuous difference in the size of the yolk gland acini, which is very striking and apparently beyond modification by contraction or other change in form. It may be that this form represents merely an older specimen of F. Rathouisi, but reference to Odhner's figures will show at once that it can hardly be a younger or less developed form of F. Buskii since it is in every way fully developed. I am inclined to consider it a new species, to which the name F. Goddardi may be given.* There is hardly opportunity here to discuss the matter in detail. I expect to consider it most extensively in a larger paper on these forms now under preparation.

* Note.—As the Journal goes to press, Dr. Jefferys has received two typical specimens of F. Goddardi from Dr. Garner, of Shanghai, which she reports as having been vomited by a Chinese boy.—Editor.
BIBLIOGRAPHY.


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RESEARCH COMMITTEE.

Third Interim Report.

We had feared that material would only be forthcoming for a final Report of the Committee at or about the time of the Hankow meeting. A fair quantity of interesting material has, however, come to hand, and we are anxious not to delay the publication of this. Further we have the promise of three important papers for the final issue of these reports, so trust that we shall not then be lacking in matter of interest.

We have added no comments to the papers in this issue; they all speak for themselves.
This report contains:—

1. The C. C. M. A. Research Committee's Report.
2. Extracts from a letter to the chairman and report of cases of Schistosomum japonicum infection, by D. E. F. Wills, Tsao-shih, Hupeh.
3. Extracts from a letter to the chairman from Dr. Assmy, Chungking, Szchuan.
5. A summary of a series of faecal examinations, by Dr. James R. Cox, Rensheo, Szchuan.

JAMES L. MAXWELL, Chairman.

C. C. M. A. RESEARCH COMMITTEE REPORT.

In presenting the report of your committee on faecal examination we must express our regret at the small number of members and those associated with us in Central China who have sent in their reports.

We have received extended reports from four only—Drs. Brett-hauer, Hodge and Booth, Taylor and Macwillie. In addition to these, Dr. Gillison reports a case with tape worm and Dr. Thomson reports having found the Necator Americanus from a patient from Kiukiang.

The following is the detailed report of the total series, sent to the committee:—

When we look at the large number infected with the Ascaris Lumbricoides, 70 per cent., we can appreciate the feeling amongst so many of the Chinese that they would die if all the worms were taken from the bowels. Another interesting feature of the Ascaris infection is the number of cases in which the unfertilized eggs were found without fertilized ones being present. Dr. Taylor's report shows 9 per cent. and Drs. Hodge and Booth 5 per cent.

The Ankylostoma is found to be very common in Anking; the report from there showing 36 per cent. of all cases. Hankow, too, does well with 11 per cent. Anking and Hankow also surpass the others in infection by the Schistosoma Japonicum, being 16 per cent. and 8 per cent. respectively.

This infection was generally accompanied by anaemia, diarrhoea, and splenomegaly, though in some cases there were apparently no abdominal or systemic symptoms whatever.

The large number of mixed infections are naturally due to the presence together of the Ascaris and Trichocephelas D., but mixed infections of three and four varieties were not uncommon, and one case under Dr. Booth was found to have a menagerie of six different species.
There were a number of reports received in which "unclassified" and "unrecognised" eggs were found.

It is much to be regretted that these were not followed up, as it seems to me that it is just here that the most important results of our work are to be expected.

In one at least of the hospitals where careful examinations are being made, a new species has been discovered and that too by a Chinese.

SERIES OF FECAL EXAMINATIONS FROM FOUR SOURCES,
with notes from two others.

<table>
<thead>
<tr>
<th>Number of cases in series</th>
<th>Single infections</th>
<th>Mixed infections</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>


<table>
<thead>
<tr>
<th>Ova found.</th>
<th>Singly</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris Lumb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilized</td>
<td>71</td>
<td>116</td>
<td>187</td>
</tr>
<tr>
<td>Unfertilized</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Both</td>
<td>12</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>154</td>
<td>245</td>
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<table>
<thead>
<tr>
<th>Ova found.</th>
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<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trich. Dis.</td>
<td>13</td>
<td>109</td>
<td>122</td>
</tr>
<tr>
<td>Ankylostoma Dis.</td>
<td>4</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>Oxyurus Verm.</td>
<td>3</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Schistoma Jap.</td>
<td>2</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Circomonas Hom.</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ameba</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Charcot Leyden Crystals</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fluke</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Spores</td>
<td>1</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Balantidium Coli</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Necator Americanns</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>

WESLEYAN MISSION MEN'S HOSPITAL, HANKOW.

Series of Fecal Examinations by Drs. Hodge and Booth.

<table>
<thead>
<tr>
<th>Number of cases in series</th>
<th>Single infections</th>
<th>Mixed infections</th>
<th>Negative</th>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Ova found.</th>
<th>Singly</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris Lumb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilized</td>
<td>29</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>Unfertilized</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Both</td>
<td>10</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>154</td>
<td>227</td>
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</tbody>
</table>

With a total of 101

<table>
<thead>
<tr>
<th>Ova found.</th>
<th>Singly</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schistoma Japon.</td>
<td>1</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Trich. Dispar.</td>
<td>5</td>
<td>53</td>
<td>58</td>
</tr>
<tr>
<td>Oxyurus Verm.</td>
<td>1</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Ankylostomum Duod.</td>
<td>2</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Fluke</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spores</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Balantidium Coli</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
### HANYANG HOSPITAL, HANYANG.

**Series of Fecal Examinations from Dr. Bretthauer.**

<table>
<thead>
<tr>
<th>No. of cases in series</th>
<th>Single infections</th>
<th>Mixed infections</th>
<th>Negative</th>
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<tbody>
<tr>
<td></td>
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<tbody>
<tr>
<td>Ascaris Lumb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trichocephalas Dis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankylostoma Dis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxyurus Verm.</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Amoeba</td>
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### ST. PETER'S HOSPITAL, WUCHANG.

**Series of Fecal Examinations by Dr. MacWillie.**

<table>
<thead>
<tr>
<th>Number of cases in series</th>
<th>Single infections</th>
<th>Mixed infections</th>
<th>Negative</th>
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<tbody>
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<tbody>
<tr>
<td>Ascaris Lumb.:—</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Both Fertilized and Unfertilized</td>
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<tr>
<td>Trichocephalas Dis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Oxyurus Vermicularis</td>
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<td></td>
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<tr>
<td>Charcot Leyden Crystals</td>
<td></td>
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</tbody>
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### ST. JAMES' HOSPITAL, ANYING, CHINA.

**Series of Fecal Examinations by Dr. Taylor.**

<table>
<thead>
<tr>
<th>Number of cases in series</th>
<th>Single infections</th>
<th>Mixed infections</th>
<th>Negative</th>
</tr>
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<tbody>
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</thead>
<tbody>
<tr>
<td>Ankylostomum Duodenale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ascaris Lumb.:—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both Fertilized and Unfertilized</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Schistosomum Japonicum</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Trichocephalus Trichiurus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amoeba Coli</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cercomonas Hominis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unclassified</td>
<td></td>
<td></td>
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</tbody>
</table>
EXTRACTS FROM LETTER AND NOTES ON CASES OF SCHISTOSOMA JAPONICUM, BY DR. E. F. WILLS.

My hospital is situated on the border of the lake district, into which the Han overflows, that is, to the south. To the north the country rises steadily to Honan.

Ankylostoma come from the farmer class mostly, S. Japonicum from the lakeside dwellers and, from what patients say, whole villages seem infected; the men often are fisher folk. S. Japonicum patients we can generally guess:—A little ascites, muddy complexion, badly nourished; they complain of sounding bowels; diarrhoea during day with, perhaps, mucus; blood on and off; at night only one or two motions if advanced. Could one such be cured we should have, probably, hundreds to swell the statistics, but they are told that the condition is incurable. Hence statistics are not of much worth I think.

OUT-PATIENT NOTES OF SEVEN CASES OF SCHISTOSOMUM JAPONICUM.

<table>
<thead>
<tr>
<th>No.</th>
<th>Sex</th>
<th>Age</th>
<th>Complains of</th>
<th>Faeces show</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Male</td>
<td>30</td>
<td>Abdominal ascites.</td>
<td>S. Jap.</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>26</td>
<td>Weakness, splenomegaly, diarrhoea.</td>
<td>S. Jap.</td>
</tr>
</tbody>
</table>

No. 2. Male, 44. From lakeside district, farmer, deals in lotus seeds, spends much time wading. Illness began last year. Six months with diarrhoea and occasionally blood. Formerly had piles, which disappeared when this started; says bowels sound very loudly; sometimes can be heard by by-standers; has enlarged spleen; face thin and wrinkled, poorly nourished.

No. 5. Male, 26. Well-built and well-nourished, fisherman, lives near lakeside, complains of bloody diarrhoea, especially in morning; standing finds discomfort round anus; at night no motions, but on rising has to run.

No. 8. Male, 26. Complains of weakness, no dyspepsia; if not at work during day he sleeps well, but a day's work is followed by sleeplessness and pain; much walking causes painful spleen; has had large spleen for years. Ill four months, spleen painful, had three or four malarials at night, great chill, and stayed awake till a great sweat at cock crow, when he went to sleep. His trade is a sugar maker; lives three miles from the lakes, but near a river, spends no time wading, has no mucus or blood in stools.
Research Committee.

EXTRACTS FROM LETTER FROM DR. ASSMY, CHUNGKING.

1. *Ascaris* is harboured by nearly every Chinese whose stools I examine.

2. *Tricocephalus Dispar* very often found.

3. *Oxyuris*: Found, but seldom, even in children.

4. *Ankylostomum Duodenale* is widely spread. Farmers, gardeners, coolies harbour it. No women. This speaks for entrance through the skin of the naked feet, not through the mouth.

Symptoms, are anaemia, often profound, conjunctivae often nearly white; face, yellow greyish, very peculiar hue, which enables one to make the diagnosis on first sight when passing through the streets and villages. Heart, quickened action; sometimes systolic murmur (functional). Lungs, bronchitis; have seen cases with sanguinolent sputum (without tubercle bacilli or Paragon Westermani). Patients always complain of "narrowness" in the chest and heart-burn. øEdema of the feet nearly constant. Knee-jerks always present. Eczema of the legs seems to me not to have much value in this country.

Anthemintics: I have used thymol, b-naphthol, and ext. filic. mas. Thymol was not taken willingly by the patients. No difference between b-naphthol and fresh ext. filic. in capsules. In all cases several doses necessary. I think that it is impossible to free the body at once with one dose of an anthemintic of the ankylostoma. There are surely always a number of larvæ on their way from the surface of the skin to the intestines, which reach the intestines after the anthemintic has done its work. I have seen very often, after the second dose (given six days or a week after the first), numbers of very small male and female worms passed with the stool.

*Tapeworm.*—Only lately found *T. saginata* in a man from Yunnan, who had been in Japan also and had eaten raw beef. Have been on the lookout for them all the time, as I found tapeworms often in Chihli, but never have seen a case here till now.

No *Opisthorchis, Fasciolopsis, Schistosoma* or *Bilharzia. Trichomonas* and *Balantidium Coli* found and something like *Lamblia*, but not sure.

STATISTICS OF DR. JAMES R. COX., RENSHEO, SZCHUAN.

Number of cases—28.

<table>
<thead>
<tr>
<th>Infection</th>
<th>Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No infection</td>
<td>3</td>
<td>10.7%</td>
</tr>
<tr>
<td>Ascaris</td>
<td>21</td>
<td>75%</td>
</tr>
<tr>
<td>Tricocephalus</td>
<td>6</td>
<td>21.4%</td>
</tr>
<tr>
<td>Ankylostomum</td>
<td>9</td>
<td>32.1%</td>
</tr>
</tbody>
</table>

Ankylostomum cases, employment: Farmers, coolies and such 36.4% infected; others 16.7%.
THE PLACE OF PARASITOLOGY IN RECENT MEDICINE.

By Dr. H. L. F. Paterson, M.B., C.M., Shanghai.

One's experience generally is that the greater the scope of a paper the greater are the difficulties in writing it. The pie looked very nice at first, but—

When the pie was opened, and the birds began to fly,
Then was trouble brewing both for you and I.

If therefore I treat you this afternoon to a series of truisms, you will kindly blame anyone but myself.

There are few diseases that have not some relationship to parasites of one kind or another. Parasites themselves may be restricted in number, but parasitology may include the study and knowledge of almost anything, and cannot be defined with anything like accuracy.

The science may, however, be roughly divided into three sections:

I. Parasites themselves, deriving sustenance directly from animal tissues—living or dead.

II. The carriers of agents of introduction of parasites to their hosts.

III. Organisms necessary to the development of the life cycle of parasites.

This division is not a very good one, for there are organisms which belong to II and III and a few that belong to all three, such as certain bugs, fleas and, to some extent, some mosquitoes. Let us, leaving out cases of slight exception, take up these divisions for a minute or two.
I. True parasites may be divided into (1) Those causing disease in man, and (2) Those which are non-pathogenic. This division is not by any means a definite one, and can only be a temporary one, meaning by that that we can place a certain parasite in one or the other class only according to its position and action at the time that we meet it.

There are few that prey on man that are not at some time present in man without causing any perceptible disease; the reverse, that there are few that harbour at one time or another in man that do not on some occasion cause disease, being equally true. The bug, flea, and mosquito are, however, instances of parasites that do not cause disease directly by their parasitic action, excluding of course the possible introduction of other organisms.

We all know how the Ascaris Lumbricoides, the Tricocephalus Dispar, and the Oxyuris Vermicularis may lie in the intestinal canal without causing any perceptible pathogenic effect, and yet may under certain conditions suddenly acquire the power of causing serious and even fatal disease. And again how a person who has suffered from malaria may live for years in a temperate climate and never have an attack, nor any sign of the parasite in the blood, yet let him get a severe chill, and he may be prostrated with ague; his blood showing the parasite in the original form.

Again there is the well-known fact that the alimentary canal is swarming with micro-organisms, which are unable in a healthy person to gain an entrance to the tissues, and also how a person, apparently healthy in all respects, after a strain of the tissues of a part, and the resultant weakening in that part of the normal power of combating disease, may be afflicted with tuberculosis.

There are many other examples of such things which will occur to all of us.

II. Turning to the carriers of parasites, we meet with an enormous number and variety of objects—animate and inanimate. Indeed there is nothing that may not at one time or another be classed in this category. The fly which crawls over our sugar, the mosquito whose proboscis injects its quota of disease organisms into the blood, the ice that bears the dreaded organisms of cholera and typhoid, and so on to the surgeon's needle that introduces the fatal septicaemia and the particles of coughed out fluid that convey the fierce and insatiable tubercle bacillus,—all these strictly speaking may be included.
III. Lastly, we must look for a moment at the list of objects that assist as temporary hosts to parasites, and in which these parasites gain the degree of maturity necessary to the carrying out of their nefarious work in man. We have the mosquito harbouring the filaria nocturna, the plasmodium malarë, and the unknown organism of yellow fever; the crustacean cyclops acting as nidus to the embryo of the filaria medinensis; the miracidium of the distomum hepaticum lodging in the mollusc limnæa truncatulata; the undeveloped tænia sagginata in cattle, tænia solium in pig, and tænia diminish in insects, beetles, caterpillars, etc., the bothriocephalus latus in pike and other fish; trichina spiralis in the pig, and so on.

But let us pass to a more direct consideration of the place that parasitology holds in the practical medicine of to-day.

The three departments of scientific medicine are diagnosis, treatment, and prevention of disease. These may be taken as being of importance in the order given. For, though it might be considered that treatment and preventive medicine were of equal if not of greater importance, they are so dependent on diagnosis that the latter must be considered the most important.

If we look into our medical practice, and into the knowledge we bring to it, we will find that parasitology occupies a very large place, indeed almost the whole. Our ataxia and gummatous patients bring to mind the almost royal spirochete; our anaemia cases may be the hosts of ankylostomum duodenale or other helminths; emaciation, night-sweating, and hæmoptosis set us an-hungering for some of the sputum and a few drops of Ziel-Nielson stain, and the man who complains of diarrhœa, epistaxis, and a fulness of the abdomen, is promptly robbed of some of his blood that the nearest health office may give honour to the name of Widal.

It is only parasites and their carriers that are of great importance in diagnosis; the group of subsidiary hosts being of concern chiefly in preventive medicine.

The question now arises, What place is parasitology to have in diagnosis? Is it to be the only, the most important, or a subsidiary means of diagnosis?

There are still a fair number of diseases which do not fall under the head of being definitely parasitic diseases, though these tend to diminish yearly until it seems almost as though in the course of time the list of non-parasitic diseases will be limited to cover poisons, mechanical injuries, and a few other stray troubles.
The Place of Parasitology in Recent Medicine.

The day may come, therefore, when we shall be able almost wholly to appeal to our knowledge of parasitology for diagnosis and to acknowledge the importance of clinical symptoms only as savers of time as pointing out the direction our researches should take.

This day has, however, not yet dawned, and if we consider that very often we are unable to carry out our parasitic examinations for want of time or means, and that in the present state of our knowledge such diagnosis may be wrong or misleading in not a few cases, we can see that the older method of clinical examination has, by no means, lost its hold in recent medicine.

An old school physician, with whom I had the honour to be associated for some time, opened my eyes considerably to the possibilities of purely bedside work. He did not disbelive in microscopic work, but seemingly found that experience gave him as great or greater certainty in diagnosis, and certainly saved much time. A case, for example, where bedside examination left me very doubtful, was at once pronounced by this doctor as typhoid on consideration of the history, of the abdomen, tongue, and facies, a diagnosis that went utterly beyond me, but which was confirmed a few days later by the report on the Widal reaction test. Of course one may say that sort of seemingly offhand diagnosis is not, by any means, certain, and yet after a few months' experience with this physician, I was ready to asseverate that it was as certain as most of the newer methods. There are many holes to be picked in the parasitological examinations of to-day, and such work is full of disappointments. One meets with fevers that have all the clinical signs of malaria, and yield to quinine, and yet try as one may, no plasmodium appears on the scene to make you satisfied with yourself. The bacteriologist at once says: "Either be sure that it is not malaria, or tell yourself that you are ignorant of the ways and means of conjuring up the organism to sight, or if that hurts too much, blame it on your apparatus and stains."

One may also have cases that are absolutely identical with cholera, and yet, if you cannot find the cholera bacillus, call it not cholera but cholerine.

Again, there are a number of diseases that are bacterial in origin, and yet are not recognisable or differentiable by ordinary bacteriological means; take for instance a simple inflammation of the appendix, a bacterial disease differentiated by bedside, not laboratory work. It seems to me that a deeper grounding, a longer experience and more careful mental processes are required in clinical work than in bacteriological and helminthiological work; and, if this is so, though we cannot
do without either, it is necessary to place our knowledge of parasitology on a firm basis of clinical experience.

But great as is the importance of parasitology in diagnostic work, it is also great in treatment. It was knowledge of the effects of bacteria, and of the power of stopping those effects, even if it was a somewhat blind knowledge, that led to the antiseptic and later the aseptic methods of modern surgery. It is the same knowledge, though less blind, that has brought forth the wonderful lymph and serum treatments ranging from small-pox to typhoid. Because of what parasitology has done, we no longer despair of our septicaemia and tetanus cases. Some of the greatest triumphs of modern medicine have been in this direction, and with antistreptococcal, antistaphylococcal, antidiphtheritic, antityphoid, and other serums and lymphs we feel that we have advanced a long way.

In the light of experience we begin to see that many treatments hitherto looked upon as empirical, are in reality means to the end of getting rid of parasites, whether by killing or enfeebling the parasite, or by strengthening the tissues of the body to conquer in the fight. One remarkable instance of this is to be found in the effect of quinine on malaria; another is that of fresh-air treatment combined with Debove's method of forced feeding in tuberculosis.

Of course, as has been noticed above, treatment depends very largely on diagnosis, but it is one of the most valuable results of recent advance in parasitology that, knowing the cause of trouble, the exhibitors of practical medicine are left very much freer in treatment than was the case before this advance was made. I mean by this, that there is no longer necessary a constrained, stereotyped knowledge of what treatment to use, and especially what drugs to use in any given disease. With the advance equally great in therapeutics as in definite diagnosis, we are now much freer in our choice of treatments.

But now let us look for a short time at the part played by parasitology in preventive medicine.

The freeing of great tracts of land in England, France, Italy, America, and other countries from malaria, attests to the value of the researches carried out into the life of the plasmodium and its intermediate host—the mosquito. The cutting out of yellow fever from Havana is another example of the value of such work.

We have by no means reached the end, however, even in places where the schemes suggested can be carried. Take, for example,
The amount of plague that has occurred in Hongkong this year, and that in a place that is, nominally at all events, under the hands of some of the most competent men of the present day. In India, too, that empire of vast preventive undertakings, and from the midst of which so much of our parasitological knowledge has come, the epidemics of the moment hold great sway.

The most troublesome thing about these efforts is that the least want of knowledge or competence may be the cause of much trouble. Such was the case in the epidemic of small-pox in Montreal in 1885, when a man from Chicago was admitted to a hospital suffering from what proved to be small-pox, and the inmates of the hospital were dismissed to their homes when this was ascertained. The result was that within nine months more than three thousand people in that city died from the fell disease.

It is due almost entirely to isolation and sanitation, these great adjuncts of preventive medicine, that typhus has been almost totally stamped out of England and the greater part of North America, and that scarlet fever and other such diseases attack fewer persons and with less virulence in many countries than formerly.

A few years ago in Leith (the port of Edinburgh) a rag-picker, his wife and two children were suddenly attacked with plague, probably through rats getting ashore from some boat newly arrived from a tropical port, and though the plague had in front of it a large, dense, and unimmunised population, it went no further, because preventive medicine stepped in.

Such matters, however, by no means exhaust the resource of preventive medicine. All efforts to prevent the weakening of the body, to strengthen the body, to select proper foods and to keep these foods free from contamination, to drain habitations properly, to have a good clean supply of water, to prevent overcrowding and filth, and many other like things are to be included, and are, to a large extent, due to labours and suggestions of parasitologists.

I might perhaps have saved a good deal of time and delivered you from much weariness if I had put all I have to say in a word or two—"Parasitology is the basis of modern preventive medicine and a very large factor in both diagnosis and treatment."
HYPERTROPHY OF THE MAMMA—MALE AND FEMALE.

By W. ARTHUR TATCHELL, M.R.C.S., L.R.C.P., Hankow.

Hypertrophy of the female mamma is a very rare affection in Europe and America. How rare it is in China and Eastern countries it would be interesting and instructive to learn. So far I have seen but one case. In the male the affection is more rare than in the female.

In the British Medical Journal of April 24th, 1909, a case is reported of an apparent unilateral development of the mamma in the male. He was a Swede aged 26. For eight years his left breast had gradually, painlessly, and symmetrically enlarged. When removed, it weighed just under eight ounces. On a naked eye examination no cysts were detected and the mass was uniformly white. Under the microscope the tissue was found to be fibrous, with dilated ducts, which were lined by nucleated epithelium.

Recently I have had a similar case. A Chinese farmer, aged 20, had for five or six years (Chinese are never certain of these, or other details) noticed the gradual and painless enlargement of his right breast. There had not been any discharge or discomfort, neither had there been any other swellings on the body. Otherwise he had enjoyed perfect health. The breast was uniformly enlarged and firm. The nipple was rather prominent and the areola pigmented. There were no enlarged glands in the axilla. I removed the breast by making an inferior curved incision, turning up the skin, and enucleated the whole mass of the breast tissue. The portion removed was uniformly firm; there were no cyst, or any adhesions, except those which firmly attached the gland to the nipple. The part removed weighed five and a half ounces.

The report of the Shanghai Municipal Laboratory was as follows:

"This tumour appears to be a fibroma. Included in the main fibrous structure are a few glandular elements and a small quantity of adipose tissue."

The second case of hypertrophy of the mamma is still in hospital. It is a young woman of 20 years, rather delicate. Her catamenia commenced at 17. She has been married three years. There have not been any children or miscarriages. Menstruation had been regular every four weeks until about seven months since, when the quantity diminished; her periods became irregular and a white
Hypertrophy of the Right Male Mamma.
Hypertrophy of the Female Mammary.
discharge commenced. Five months ago menstruation ceased, but the white discharge has continued to the present time.

Nine months ago she noticed that her breasts began to enlarge rather rapidly and became hard, particularly on the outer surface, commencing first in the left and then in the right one. There was neither pain or discharge, and the only reason for her seeking advice was their weight and discomfort. The appearance on admission to the hospital was as seen in the photograph. There was no tender area, but they were firm and irregularly hard in places.

The first one removed was the left. I made a superior and inferior curved incision and enucleated the whole breast. The skin was very wrinkled and slightly thickened. The cutaneous vessels were enlarged and prominent, and bled freely when cut. But the haemorrhage could be easily controlled by forceps except at and around the nipple. There were no strong adhesions. The axilla was not touched, as the glands were not enlarged. The mass removed weighed ten pounds and twelve ounces. The microscopical examination showed large irregular masses of white fibrous tissue with fat in large quantity and stroma.

On the third morning after the operation the patient was surprised to discover a foetus in the bed. It was difficult to convince her that it was such and even now, I fear, she has her doubts. It was about three months old.

Three days after this event the remaining breast became softer, and we were able to express a fair quantity of milk from it. This lactation continued until the breast was removed. I hesitated to remove it, but they were anxious that I should do so. This was done a fortnight after the first. It weighed eleven pounds four ounces, and was similar in structure to the first one removed.

Hypertrophy of the mamma is of interest, not only on account of its rarity, but because little, if anything, is known of its causation. The three periods of life at which it is known to occur coincide with those of mastitis, i.e., infancy, puberty, and pregnancy. One therefore concludes that its appearance must be connected with some precociousness of the sexual functions. Hypertrophied breasts of girls beginning at puberty have been known to diminish in size at pregnancy, whilst others have greatly increased in size. Another interesting fact to note is, that the older the subject the smaller the hypertrophy.

It has been stated that hypertrophied breasts do not secrete. That may be true of those occurring at infancy or puberty, but such observers
as Delbet, Billroth, and Lotzbuck have recorded a few cases of this affection, in which there has been an "excessive secretion of normal milk during pregnancy." The above case can be added to the same list, minus "excessive."

As a rule mammary hypertrophy is not a physiological enlargement, but is due to the excessive growth of the perilobular and interacinous tissue and is of a diffuse fibromatosis character.

AN EPIDEMIC OF GLANDULAR FEVER.

By P. B. COUSLAND, M.B., Shanghai.

To quote Osier, glandular fever is "an infectious disease of children developing, as a rule, without premonitory signs and characterised by slight redness of the throat, high fever, swelling and tenderness of the lymph-glands of the neck, particularly those behind the sterno-cleidomastoid muscles. The fever is of short duration, but the enlargement of the glands persists from ten days to three weeks." The disease has been described by German, American, and English writers. The best account with which I am acquainted is that by Dawson Williams.

In the spring of 1901, two days after arriving at Swatow from Shanghai, a girl aged five developed symptoms of fever, and next day there was a swelling on the left side of the neck and face suggesting mumps, but on palpation found to be caused by enlargement of the lymph nodes posterior to and below the angle of the jaw. On the third day of the attack the temperature was lower, and in a day or two more the patient was convalescent, but for the enlargement of the glands, which persisted for a couple of weeks.

In October of the same year the disease prevailed extensively among the Chinese children of the region, and although superficially resembling mumps, the people were not deceived and the invariable remedy for that trouble—indigo plaster—was not applied. The few foreign children at my station, although not known to come in contact with any Chinese children or infected cases, were attacked.

All the cases seen presented the same features—malaise and fever, followed closely by some pain in the neck. The temperature rose to 101°, 102° or 103° with the usual febrile symptoms. Next day or later the lymph nodes under the left sterno-mastoid muscle were manifestly
enlarged and tender and continued to swell, presenting at the anterior border of the muscle. There was also some swelling of the subcutaneous tissues over the affected nodes and extending on to the cheek. The skin was not reddened and the throat symptoms were slight. With the swelling of the nodes the temperature attained its maximum and then fell, leaving the child in a debilitated condition with what looked like chronic enlargement of one or more of the lower nodes of the superior cervical set. This enlargement gradually passed away.

In all the cases coming under my observation the only nodes affected were on the left side of the neck; the bilateral condition and the involvement of the posterior cervical, axillary, or inguinal one was not noticed.

The appearance and the infectious character of the disease suggested mumps and pestis minor, but the differential diagnosis was easy in the first case. Plague had prevailed that summer, but the impartial way the glandular fever included all places in its sweep was very different from the erratic manner plague picks out some places and leaves others untouched. Its apparently direct infectiousness, and its attacking foreigner and native alike, and showing no dependence on unhygienic surroundings or the presence of rats, suffices to distinguish it from bubonic plague, although of course the first cases of an epidemic, or sporadic cases, might very well create consternation.

This is the only epidemic of this disease I have seen in twenty years' medical work in that region, and I am not aware of having seen any sporadic cases among the Chinese. Of dengue also I have passed through but one epidemic, but sporadic cases have occurred in other years.

The girl first mentioned was included in the victims of the above epidemic and had a subsequent, her third, attack two years afterwards, almost immediately on landing in the U. S. A. It was also diagnosed there as glandular fever.

To fill out a little further the account of this epidemic I may be permitted to quote some cases of Dr. Henry Layng, late port medical officer at Swatow. In three foreign children under his care two had the left side only affected, while the third had involvement of the nodes on the right side subsequent to those on the left; the fever rising again as the fresh nodes were inflamed and lasting ten days, instead of three or four as in the unilateral cases. He also records the occurrence of suppuration in a swollen node in the case of a debilitated Chinese child.
HOSPITAL IN-CASES AT SING IU.

By Frances I. Draper, M.D., and Emma J. Betow, M.D.

CASE I. Ventral hernia as a result of native needling. This patient, age twenty-two, married, had enjoyed perfect health up until her first confinement, which occurred three years before. She was in labour three days, and the mid-wives evidently did their worst. Her child was still born. Peritonitis set in, and a native doctor was called to needle the abdomen; he continued this treatment ten days, when pus began to discharge from some twenty-one openings. According to her description there was an erysipelas-like inflammation over the whole abdomen.

A few inches to the right and above the umbilicus a large piece of skin and muscle sloughed off, exposing the intestines and liver; this was dressed with green sweet potato leaves and paper. She was in bed four months, but it was two months more before the wound was entirely healed. This left a hernia sac, the size of a small orange; she became pregnant again; during this pregnancy the ring and sac enlarged, causing her much discomfort. It never became strangulated, as the ring was now about three inches in diameter. This confinement was normal; two months later she came to us; at this time the sac was the size of a child's head and covered with a scaly eruption resembling eczema; after a few days' treatment we could operate.

A knuckle of intestines and a portion of the omentum were adherent to the sac; these were easily liberated. The edges of the muscle forming the ring were freshened up and stitched, making a seam seven inches long. The wound healed by first intention; the patient making a good recovery.

CASE II. Patient Boi Sua, aged 25. Married several years; with one miscarriage in early married life. Menses normal; examination found the cervix was very high, and externally the uterus could be outlined. It was very large; the whole fundus was plainly palpated to the left, seemingly turned on itself; nothing else was perceptible, but one large mass filling the entire abdominal cavity, filling out the sides and extending high up under the ribs, obliterating the whole of the abdominal viscera.

She gave history of this growth, commencing some five years previously, with a constant increase up to the present size. It was now a considerable hindrance to respiration and the added weight caused
Case III. Ovarian Cyst. Operation at Sing-nu Hospital.
Tumor after Removal (inflated to normal size).
it to become a great burden. She had been troubled with an occasional attack of malaria, but with this exception enjoyed good health; was a strongly built woman, and her husband being a fortune teller, she had been obliged to do field work to help make both ends meet.

Her trouble was diagnosed as an ovarian cyst, and after a few weeks' stay in the hospital we operated and found the diagnosis correct. An incision, some four inches, was made in the median line, and the fluid was removed by the use of the trochar. This opening was then stitched up and the sac drawn out through the abdominal incision; it was adherent posteriorly to the peritoneum above the sigmoid flexure, and filling in the Douglas cul-de-sac. These adhesions were quite extensive, but were removed with gentle force. The pedicle was ligated, after which the wound was sutured in the usual manner.

After two days the patient developed a morning rise of temperature, which continued for about two weeks, but no pus formed, the wound healed by first intention. In three weeks the patient was allowed to be up, and made a good recovery without any further complications. Several months later she returned to us as a visitor, walking a distance of several miles; she tells us she is perfectly well and the wonder of her village. This tumor weighed 48 pounds.

CASE III.—Patient, Au Keng-di, aged 26 years. The wife of a wealthy literary man and a bound-footed woman, married, with one child aged 8 years. She was a small, rather delicate woman, and having suffered from malaria was very anemic, and albumen was found in the urine. Menstrual functions regular until the last two months.

Examination found an abdominal mass similar to Case II; the cervix was high, but externally the uterus could not be palpated. This proved to be another ovarian cyst. After a few weeks of tonic treatment and we had about decided to operate, she was suddenly taken with severe pain, which could only be relieved with morphia. The urine became dark and scanty, albumen increased, and the tumor became very much distended, causing labored respiration; the patient was unable either to lie down or to take nourishment; the pulse became weak.

We concluded she had a twisted pedicle and prepared to operate at once. After the abdominal incision had been made and the fluid drawn off, we discovered the mass had twisted partly to the left, and the right tube was laying perpendicularly under the abdominal incision. The appendix was somewhat inflamed, and about two quarts of dark thin fluid was found in the abdominal cavity. A pedicle, over seven
inches broad, was attached to the intestines, broad ligament and right horn of the uterus, by old and firm adhesions, which could not be readily peeled off, so, rather than run the risk of a laceration, and as she was in a very poor condition, having nearly collapsed while the fluid was being drawn of, we decided to ligate the blood vessels, cutting off the tissue and leaving a small portion of the cyst wall attached.

This was all closed by a continuous suture of catgut and dropped back into the abdominal cavity, after which two quarts of saline solution were poured in and left, when the wound was sutured in the usual manner. The patient was placed in bed in practically as good condition as she came onto the table. That evening she had some pain, so that about midnight I gave her an injection of morphia. The following days had no more pain and no rise of temperature and she began to gain rapidly, and in three days was allowed to take solid food, and at the end of two and a half weeks was up and about.

She entirely recovered; her color became good, and all functions were normal before leaving us. This tumor weighed 38 pounds.

The accompanying photo is of Case No. III, before and after removal.

THE EMMANUEL MOVEMENT IN CHINA.

By EDWARD M. MERRINS, M.D., Wuchang.

In the January* number of this Journal the editor, in his own inimitable way, expresses his opinion of the Emmanuel movement. It would seem that little more need be said, but the present article is in response to his request for a brief presentation of the subject from a point of view somewhat different to his own by one who thinks that psycho-therapy, judiciously applied, may have its legitimate place among the resources of the Christian missionary.

The power which the mind possesses of influencing the state of the bodily health has now come to be widely recognised among the laity, especially in America and England, and so many cults have arisen which profess to cure disease by mental influence that the clerical and medical professions have been forced to give this widespread movement their earnest attention. It was made the subject of a report at the last Pan-Anglican Conference, and so dignified and conservative a body as the British Medical Association will consider it at its next convention. For the medical missionary, whose work is not only to
The Emmanuel Movement in China.

cure the ills of the body, but also to bring saving health to the soul, the whole subject of mental healing should possess peculiar interest.

Among these mind-healing cults are the Christian scientists, who hold that disease, in common with evil in all its forms, is simply a figment of the imagination, the fantastic creation of mortal mind, and that even death itself has no reality for the fully emancipated soul. The Emmanuel movement, originating within the Episcopal Church, whence it spread to almost every communion, rests on a much sounder basis. It does not deny the physical basis of organic disease, and sanctions the use in such cases of the usual medical and surgical treatment. But it claims that many diseases are made worse by a morbid state of the mind, and that certain functional nervous ailments are due to this cause and nothing else, and that if this morbidity of mind can be corrected, the physical symptoms improve or disappear. To accomplish this particular purpose the services of the clergyman are enlisted, rather than those of the physician.

The treatment of disease by psycho-therapy follows two lines—the suggestive and the rational. Suggestive psycho-therapy may be that of auto-suggestion, as when a sick person persuades himself he is not sick, or that if he is sick, he will be well in a definite time; or as when a man expels the demon of worry by dropping a bean into a box every morning before starting off for business, repeating at the same time the formula: "Worry is in the beau and the bean is in the box," and recalling the formula to mind whenever inclined to worry during the course of the day. Or the treatment may be hetero-suggestive, as when a father implants in the mind of his sleeping child certain suggestions which lead to the cure of such an ailment as enuresis. Or the treatment may be hypnotic, the patient being induced to make unconscious revelation of the cause of his disquietude of mind, the operator then directing the subject's mind and will into channels which he considers will lead to recovery. A serious objection to hypnotism is that it enables unprincipled men to acquire a dangerous power over persons who are unable to help themselves, and that often, so far from being curative, weak wills are made still weaker by it, and the last state of the subject is worse than the first. But in certain cases it has, no doubt, produced beneficial results. Rational psycho-therapy consists in the education of disordered minds and feeble wills by rational or moral means. Like the treatment by suggestion, this is nothing new, for both forms of treatment date back to primitive times. Whenever morbid fears have been removed, faith and hope strengthened, and the moral fibre of a man braced, it was
rational psycho-therapy, though not always directed to the cure of disease. But the rational form of treatment, against which there can be no objection, is not sensational. It is the suggestive form of treatment which has captured the imagination of the multitude and given employment to the great majority of psycho-therapists. Considering the subject as a whole, however, and from the missionary standpoint, it may be profitable to ask: What are the elements of abiding value in these movements which evidently have spent their force? Does China offer a field for the legitimate exercise of mental healing?

In answer to the first question, it is now generally agreed that not only in functional nervous ailments, but also in more serious diseases, cures have been wrought by influences brought to bear on the mind and spiritual nature of the patient. Regarding physical results only, the character of the influence exercised seems to matter little, for numerous cures are reported alike by Roman Catholics, Christian scientists, various Protestant denominations, free-thinking philosophers, and non-Christian systems of religion. All report marvellous successes, and, it must be said, are discreetly silent about their failures. It is therefore evident that in all cases it is wise to consider the spiritual side of the patient's nature, and that often it would be well if psychic as well as material remedies were employed. The present writer goes further, and in a lengthy paper printed elsewhere* agrees with those who think there is a latent power in the Christian church which should be called into action for the good of the whole community. Certain persons have a strange magnetic power over the hearts and minds of others, and when this power is exercised for the benefit of the sick it constitutes a very real "gift of healing." If these persons were of saintly life, men of strong faith and prayer, wholly devoted to the service of God, there seems no good reason why they should not work the same cures as were wrought by the elders of the early church mentioned in the Epistle of St. James. This does not necessarily mean that all the resources of modern medicine and surgery are to be discarded. These elders used oil, and though its use may have been partly sacramental, an outward and visible sign to those who needed it of the grace possessed by the elders, yet we know that in all times and places oil has been much used in the treatment of disease, and that as late as the nineteenth century, to mention but one of its uses, in some parts of the world it was regarded as a sovereign remedy for bubonic plague, one of the most universal

and ancient of the scourges of mankind.* No, the Christian scientists are not far wrong when they assert that all disease is of the pit. Disease is disorder, and as God is not the author of confusion, to try to restore mental and physical health by means which He has Himself placed in our power, is not working in antagonism to His laws, but in harmony with them. On the other hand, it does not become us as Christian missionaries to deny that in certain cases cures have been wrought by spiritual influences alone.

The next question is, Does China afford a field for the exercise of psycho-therapy? It may be said that nervous disorders are extremely rare in this country; that the Chinese, in fact, are without nerves. One hesitates to differ with the good authorities who make this statement, but is it correct? As evidence it is claimed that the Chinese are able to bear, without flinching, a degree of pain from which the stoutest foreigner shrinks in terror. However it may be elsewhere this has not been the writer's experience, nor that of other medical men to whom he has spoken on the subject. Taking soldiers as the class of all others which ought to be able to meet pain with fortitude, once they know what the pain is, it is the rule rather than the exception for them to shrink from it; they beg to be chloroformed for even trivial operations, or flatly decline to be operated on at all. Passing to other evidence, no doubt a Chinese coolie, stretched on one or more wheel-barrows, can calmly go to sleep amid the noises of a busy street. This is no irrefragable proof of the absence of nerves. Let the same coolie, if he is a heathen, be near a forest at night, and the rustling of the wind through the branches of the trees will make him sleepless, owing to his superstitious fears. The stranger within our gates finds the watchman with his drum an unpleasant interrupter of sleep; the seasoned missionary slumbers on undisturbed. Has long residence made the latter less nervous than when he first came to the field? Alas! the contrary is usually the case. The ability to sleep amid noises is simply a matter of habit or training. Then the Chinaman has a stolid aspect, is deliberate in speech and movement and fails to appreciate the value of the golden moments as they pass. This may be all true, but as Clifford Allbutt observes, the attribution of abnormal irritability or over-excitability to nervous structures is absurd. No nervous matter was

* Simpson, Treatise on Bubonic Plague (1905), p. 317. "It has been observed that those people who manufacture or carry oil are never attacked with plague. Hence it has been maintained that frictions of tepid oil prevent or cure this disease. The result of the observations made by father Louis, of Padua, director of the Hospital for the Plague at Smyrna, is the most favorable. He asserts that during the twenty-seven years he has been in this situation he has seen no means employed against the disease more useful than the friction of oil, and to this day in Smyrna and several lazarettes in the Levant, frictions of tepid oil are generally adopted as the best remedy." Observations on the Disease called the Plague. By P. Assalini, M.D. Translated from the French by Adam Neale, of the University of Edinburgh. London, 1804.
ever too excitable; to be excitable is its business; it is in over-excitability that a race horse differs from a jack-ass. It is hard to say what nervousness is, but it may be defined as a want of mental balance and self-control, an inability to muster one's mental and physical resources to meet the demands of circumstances, a tendency to hysteria, neurasthenia, hypochondria, melancholia, and such like ailments. Measured by this standard, surely the Chinese are a nervous people. Look at the want of self-control in their cyclonic outbursts of passion, the abandon of their grief, the way in which crowds are easily swayed, the hysterical condition of the whole people in time of national disaster. As to nervous diseases, insanity and other mental disorders are not uncommon, and may be found more widespread than is generally supposed when fuller investigation is made. And, judging by the history of Japan, the political and social changes through which China is now passing, the impact of Western civilisation upon her national life to an extent never witnessed before, the incessant influx of new and disturbing ideas, the keener and wider competition in the business world, will make nervous diseases still more common in the near future. The conclusion seems to be that the psycho-therapist, now and hereafter, can find in China abundant opportunities for the exercise of his peculiar gifts.

In order to be a successful practitioner, however, it is absolutely necessary for the psycho-therapist to understand the psychological aspects of the patient's case. He must be able to fathom and remove all mental and moral difficulties, not as they appear to him, but as they appear to the patient himself. Is it possible for the foreign missionary to obtain such a thorough understanding of a Chinaman's mind? Can he acquire the moral ascendancy over the patient that will enable him to direct the mental activities into health restoring channels? One hesitates to give a positive answer in the affirmative, but short of such complete mastery, much can be done by one sincerely concerned in the welfare of the patient, who believes in the power of prayer. Writing to a friend about the Emmanuel movement, the following letter was received, permission to quote it being obtained, as it shows the scope there is for psycho-therapy among the Chinese, the methods and conditions of successful treatment, and the dividing line which properly exists between the physician who cares not to

* According to Dr. K. Saito, director of the Aoyama Hospital for the Insane, advancing civilisation is bringing increased insanity to Japan. 'Fifty years ago,' he states, 'insanity in Japan was very rare. Thirty years ago it began to increase, and after the China-Japan war there was further increase. The increase was even more marked after the war with Russia. I believe that as civilisation advances in Japan, insanity becomes more general, due to the struggle for existence.' The Hankow Mail, June 30th, 1909.
The Emmanuel Movement in China.

undertake such work and the minister or other missionary, who wisely recognises his limitations in the presence of organic disease:—

"As to the Emmanuel movement," the letter runs: "I can only put myself down as a believer in it. I have had an interesting case on hand of one of my graduates, who through overwork became morbid. He was obsessed with the idea that life was not worth living, that it was useless to make any effort. He could not sleep. He could not take any pleasure in society. The mocking thought of death was always before him. I have treated him with religious suggestion. Although he was not a professed Christian, I was able to stir up faith in him and to get him to pray. I do not think I hypnotised him to any extent, but I assured him if he would repeat a certain prayer, ponder it, and believe it, and keep repeating it when distressing thoughts recurred, he would find peace and would sleep. Well, it turned out so. He has had a hard struggle, but reports himself much better. Moreover he has come to believe in the power of God and in Christ as the mediator through whom the life of God may flow into our souls and is anxious to become a Christian.

"I think, however, that we clergy should only make use of the method when some moral or spiritual malady occurs. When it is purely mental or physical, the doctor is sufficient. Of course it is most difficult to distinguish clearly at all times between the purely mental and the moral, for the two shade off into one another. I am as much afraid of ministerial quacks as I am of medical ones, and I can see that the one using this method must be sincere himself and must have the life within him which he wants to impart to others."

In the mission field, even more than at home, it is possible for physician and minister to cooperate for the good of the patient. If a physician knows he has not the power of dealing with the mental trouble which is retarding the patient's recovery, if he cannot minister to a mind diseased, let him hand that part of the case over to his ministerial brethren. And let the minister concern himself only with moral and spiritual matters. To know the physical condition of the patient as the physician knows it, may weaken rather than strengthen his power to do good. A few months ago there came to the hospital here a case of melancholia, which required psychic treatment, because of the element of remorse implicated in the derangement. When the writer learned that the man's grandfather and great-grandfather had both been insane, his faith in psycho-therapy as likely to be very efficacious in this particular case collapsed. Under the ministrations of the clergy, however, whose faith was greater, the man returned to his right mind. The minister, ignorant of the facts which compel the physician to give a gloomy prognosis, can speak and act with greater assurance.

The ideal condition is reached when the missionary physician combines in himself the powers of both callings. "The principal grievance which I have against the doctors," wrote the invalid philosopher Amiel in his Journal, "is that they neglect the real problem, which is to seize the unity of the individual who claims their care.
A doctor who does not read you to the bottom is ignorant of essentials. To me the ideal doctor would be a man endowed with profound knowledge of life and the soul, intuitively divining any suffering or disorder of whatever kind and restoring peace by his mere presence.” This is a very high standard, and many of us acknowledge with a sigh our failure to reach it, but who shall say such heights are unattainable? At any rate, in these days of great spiritual awakening in China we may all strive according to the measure of the gifts which God has given us, not only to be the proclamers of the Gospel, but also to win such an ascendancy over the Chinese for their good as shall enable us to be to them in their time of stress and trouble “a hiding place from the wind, a covert from the tempest, the shadow of a great rock in a weary land.”

A SYMPOSIUM ON METHODS OF RAISING MONEY AMONGST THE CHINESE FOR MEDICAL WORK.*

The dictionary defines a symposium as “a collection of comments or opinions brought together.” This definition of my subject gives me the privilege of citing extensively the opinions and experiences of others. And this is well for both my subject and my hearers, as my own experience is very limited indeed.

I take it that the subject includes the question of self-support in medical mission work, whether wholly or partially. Complete self-support may be far from possible for most of us engaged in medical work, but I firmly believe it should be an aim toward which we should steadily strive, even though it may add to our problems and our labor.

I. What warrant is there for aiming at self-support? To me there are several cogent reasons.

1. It is right in principle on the ground of fair exchange. This is the principle that underlies all business transactions. We have knowledge of, and experience in, the practice of Western medical science, a valuable commodity, I take it, in exchange for which we have the right to expect some monetary exchange. Should we not seek to impress the Chinese with the inestimable value of medical science as we know it, and that this valuable possession of knowledge and skill has cost the possessor not a little money and time and is some-

* Read at the West China Missionary Conference, 1908.
thing worth having? We all know the status of the knowledge and practice of medicine in China; we see the unfortunate results of it every day. I think one of the best ways to raise the popular Chinese estimate of the science and practice of medicine is first to prove our worth and then to require of those able to pay for it some return for services rendered.

2. Any professional help given is much more appreciated when something more than mere thanks is given in return. When there is ability to pay, gratuitous work is usually undervalued. Where food, bedding, medicine, treatment, nursing, etc., are free, patients are apt to think that the hospital resources are unlimited, and therefore are apt to demand rights rather than to ask favors. But the patient who is required to pay all he can toward the cost of his food, even though it may be very little, is most likely to be grateful and appreciative.

3. The Chinese who is able to pay, should not be allowed to act on the principle of getting from the foreigner all he can for nothing. If we do everything on the free basis it seems to me we increase the sponginess of the Chinese moral texture, and fail to foster that sense of self-respect, which is the foundation of all manliness. We should carefully avoid the risk of pauperizing those whom we have come to help. Our obligation is to develop character as well as heal the body.

4. Payment commensurate with ability reduces suspicion of our motives. Being unable to view our presence here in China and our expenditure of so much time, money and effort from the Christian point of view, many of them cannot but suspect ulterior motives back of all our obvious beneficence. No doubt not a few think that we have some political mission, that we are connected in some way with our foreign governments, either serving them as emissaries, or drawing pay from them for some mysterious reason. Whereas the payment of a fee will do much to allay such suspicions and will tend to an enlightened understanding of the real status of the foreign missionary, whether he be doctor, preacher, teacher, or other. I believe such a procedure favorably affects every arm of missionary enterprise.

5. As we do so much for the suffering poor, we have a right to look for support from officials, gentry, merchants, guilds, etc. Aiming at self-support gives an opportunity for the rich to help the poor. Such opportunities are all too few in China. Here, apart from missions, there are practically no hospitals, asylums, refuges, sanatoria, orphanages, and the numerous other philanthropies which characterize our Western lands and enlist the sympathies and call forth the support of the rich. Here is a potent way of inculcating the Christian
teachings of brotherhood, love, and service and of combating the too prevalent practice of caring well for self and leaving others to do the same for themselves. In short it furnishes a concrete way of preaching the Gospel doctrine of neighborliness as taught in the parable of the good Samaritan.

6. It secures better professional results, for the doctor's directions as to dosage, etc., are more likely to be followed, thus increasing the possible benefit to the patient. At the best it is difficult to secure satisfactory treatment of our patients, for they so often cease coming after a few visits if they are not yet cured. But the payment of a fee induces regularity and perseverance in consulting the doctor and greater care in obeying his instructions.

7. I believe it is practicable because the Chinese doctors always demand a fee and extort as much as they can get, and that usually in advance. Thus the people are in the habit of paying for medical services. Not infrequently a dispensary patient asks "How much is this medicine?" expecting, of course, to pay something.

8. I believe it does not hinder the evangelical work in the hospital. On the contrary, it is probably helpful, because gratitude opens the heart to the Gospel message, and not the least grateful of our patients are those who pay even a good-sized fee.

9. To preach the Gospel to every creature vast sums of money are needed. The gifts of Christian nations are altogether inadequate to the needs, so that if we can supplement those gifts by actual receipts on the mission field, we can release funds for expansion of work in other directions. Since medical missionary work is not a commercial enterprise in any sense of the term, but essentially a forceful adjunct in the great work of evangelization, I do not think it is commercializing the Gospel by expecting and asking for financial aid from the Chinese themselves. And, as I see it, herein lies one great point of difference between medical work and purely evangelistic work. I am strongly of opinion that it is bad practice to receive from Chinese, who are not members in good standing in the Christian church, any gifts of money, chapels, halls, etc., for evangelistic purposes. Such a practice opens the door for the admission into the "sphere of influence" of the church of many who have nothing but bad motives and hope to make some material gain by identification with the church. But it is quite different with medical work. The patient receives something concrete in return for his money. Undoubtedly I do not mean that evangelistic work secures no obvious benefits to those who believe and practice the Gospel, for evangelism is the heart of all
forms of missionary work. But the case is somewhat parallel to a business transaction in which the buyer receives some tangible exchange for his money. A Chinese cannot buy his way into the kingdom of God, but he can pay for the medicine which restores him to bodily health. He cannot purchase the healing of his soul's diseases, but he can pay for some surgical operation which removes some physical anomaly.

II. From a consideration of the warrant for, and the need of, self-support we now pass to a statement of a few general principles.

1. The success of medical work should not be judged by the amount of money taken in, but rather by the goodwill and influence gained. Before the medical missionary attempts to raise money he must first of all secure for himself and his hospital a reputation for professional skill and service. A few big operations, successfully performed, should so commend the work to the Chinese that they will freely give money to help on a work that is obviously so useful.

2. We should avoid the impression that our work is a money-making enterprise rather than a great Christian philanthropy. But I do not think that the method in any way detracts from our work if done with wisdom and charity. The patient should always be made to feel that it is his well-being and not his money that is sought.

3. While the hospital is not a business concern it should be run on strictly business principles. It is a legitimate aim to try to "make ends meet," while on the other hand every comfort, convenience, and attention possible with available resources, should be given, and those who can pay should pay according to means.

4. A good watchword is, "Get what we can from the rich for the poor." The rich include not only those patients who have themselves been benefited but also others who are well-to-do. The poor we always have with us. Poverty in its direst forms is everywhere seen. The extreme poor are far in excess of the rich. This is a land of great contrasts. The effect of such poverty on the health of the masses is only too apparent. Therefore, as we do so much for the suffering poor, we have a right to look for support of our work from those who are able to help.

5. But while this is so, it is a mistake to dun a few wealthy officials, gentry, and merchants for big sums rather than to secure small sums from the many. Aiding a benevolent institution, such as a hospital, should be made a means of grace to a large number. Such procedure will not only bring the work to the attention of the many,
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but will also cultivate in the many a benevolent and a public spirit and will furnish a means of approach to them.

6. A good rule is to go slowly at first until the work is well established, appreciated and felt to be a necessity. At first do little soliciting from patients or others, but later on increase both fees and requests for subscriptions.

7. The opinion seems to prevail pretty generally among medical missionaries that we should avoid life insurance examination work whenever possible.

8. As to professional engagements with guilds, schools, barracks, police offices, etc., the suggestion is made not to make any formal, definite agreement, but to do the work as a friend and later on send a subscription book. The experience of some doctors in China has shown that the Chinese are generally very generous under such circumstances. One physician writes me that he has long been of the opinion that the best way to deal with the Chinese gentry and business men, and, to some extent, officials, is to act liberally with them. He says that he offered to start an ambulance corps in a military college and the camp connected with it. In two years he had, in one way and another, about $2,000 from them, though he had never asked for a cash, and in addition had a good name for the Mission and the hospital.

9. Again, one should avoid undue urging of gifts. It is the spirit that goes with the gift that is the part that makes it really worth while. The money given under pressure loses much of its value.

III. We now come to consider the most common methods of raising money.

1. Dispensary Fees.—There are very few hospitals indeed that do not charge some fee. Thus it would appear that the great consensus of opinion is against perfectly gratuitous dispensary service. The fee varies from 2 to 200 cash, although it usually ranges from 20 to 60. The plans vary greatly, some of which are as follows: an initial fee only, which holds good indefinitely; a fee which must be renewed after several returns, or at the end of a month, say; a fee for the first visit and a few cash for each subsequent visit. I note that most of the older medical missionaries favor increasing these fees as their work becomes established.

Some patients do not wish to wait their turn, but to be seen in advance of others. These should pay a special fee, say 100 cash. Others who come on non-dispensary days or hours should be charged say 300 cash, except those who enter as in-patients.
One important point, I judge, is to have uniformity for rich and poor. Nearly every hospital has a special charge for specific cases, and I am sure there is ample justification for such practice. And in these cases the rule of uniformity may be reasonably broken. The poor patients, with specific disease, should pay something more than the customary dispensary patients, while the rich should be made to pay well for services rendered.

For small operations in the out-patient department some advise a small fee, especially if a local anaesthetic is used. No doubt there are not a few who could and should pay an extra hundred or even a thousand cash, but there are many who are really unable to pay more than their registration fee.

2. Receipts from In-patients.—Here again there is great diversity of practice. Very few hospitals make no charge at all. A few have only a nominal charge per day, while some others charge as high as 100 cash. Other examples of fees are as follows: 1,000 cash per month, $1 per week, $1 for ten days, $4 to $10 per month. A very few leave it optional with the patient. The prevailing aim is to receive from each in-patient sufficient to cover his food. In nearly every instance the really poor are taken in gratis. But care should be taken, lest those who are able to pay for food should pass themselves off as poor. Too great generosity in admitting the poor is liable to be imposed upon.

Opium patients are generally charged a higher fee than the average as a guarantee of sincerity and determination to break off the habit. But now that the government has started a campaign against opium, those addicted to the habit see that they must sooner or later rid themselves of it. This, then, is a new incentive to desire, sincerity and determination, so that in my judgment the time has come for reducing our fees.

Probably the ideal plan is to have a special ward for beggars and thieves, while there should be an abundance of semi-private and private wards. The experience of those who have had longest experience in China is that private wards, comfortably furnished and well charged for are about the easiest and most profitable means of self-support. Many well-to-do patients are willing to come and to pay a good sum for accommodation if assured of privacy.

3. Charges for Out-calls.—The general opinion is that out-calls should be well paid for, because they generally come from those who are able to pay, and also because those who are unable to pay live amidst such conditions as to make satisfactory and scientific treatment
almost impossible, so that the latter class should be urged to come to
the hospital and if necessary treated free of charge.

Personally I am of opinion that there is little advantage, profes­
sionally or otherwise, apart from obstetrical cases in out-call work,
so that when people really insist on such visits they should be required
to pay a good fee.

Some physicians only ask for a voluntary contribution; some
charge only for chair hire and medicines or for opium suicides or for
obstetrical cases. Many charge the same fee for all classes of cases.
The smallest charge noted is 500 cash, the largest Tls. 10. The aver­
age is from $2 to $5. Some make an extra charge for night cases. It
is noteworthy that many of the older physicians are increasing their
charges and strongly advise a good fee.

4. Charges for Medicines.—The great majority of out-patients
should not be asked to pay for their medicines because they are unable
to pay more than their registration fee. But probably all dispensary
patients who are able to pay for their medicines should do so. By so
doing they are likely to value their treatment more. I think that the
great majority of physicians make a practice of charging for such spe­
cific drugs as pot. iodide and mercury, while many also charge for such
costly drugs as santonin, quinine, and cod liver oil. I also believe
it would be wise to follow the custom of some and charge a few
cash for sulphur mixtures, for I think that patients who need them
would be more careful to take the necessary bath, etc. There are
also medicines that are not commonly given to dispensary patients
on account of their cost, but oftentimes a patient can be induced to
buy such if its value and its suitability to his particular case are urged,
such for example as syrup hypophos. co. and Kepler's malt extract
of cod liver oil.

Especially should patients who come regularly for treatment and
medicines for many weeks and months, be expected to pay somewhat
for their medicines, particularly in the case of certain diseases which
may require even years to eradicate.

5. Sale of Drugs.—Very few hospitals in China sell drugs in
very great quantities. Moreover it is not practicable, and I believe
not desirable for all medical men to open drug stores. Nevertheless we
are all asked to sell drugs at times, and when we do so we surely have
the right to make a reasonable profit. Many of those who buy drugs
desire them for sale to others, and, if so, may we not also profit by the
transaction? Others who ask to buy drugs are well-to-do persons who
wish to "do good deeds" or make a present to some friends.
The drugs most commonly asked for are those most needed, viz., quinine, santonin, and cod liver oil, all costly drugs. And although some of these are somewhat dangerous, I really think we may do not a little to relieve many who would never come to us by keeping a good stock of such drugs on hand for sale, with the provision, of course, that we most carefully instruct the purchaser as to their use.

Some months ago I was summoned to an obstetrical case in one of the wealthiest homes of our city, and to my amazement I saw standing on the table a bottle of chloroform and a bottle of ether, both with labels of a medical missionary. Is it safe and therefore wise to sell such drugs to all who apply? Is there not danger of not only injuring people but also of damaging ourselves and our work? I have occasionally been asked to sell some narcotic, but consistently with my contention I have refused to sell such. We all know the dangers of forming drug habits. For example the cocaine habit is a sure road to insanity and suicide.

One of the best things to keep for sale is a good brand of tinned milk. I find a great demand for it. Why not sell at a profit all we can of such an excellent food—we may almost call it a medicine. I am told that the milk sold on the streets is not only very expensive as a rule but also of inferior quality and oftentimes too old to be used with safety. Thus the people squander much money. Perhaps I may be permitted to make a little digression and make a statement regarding what I consider a great danger to this land, viz., patent medicines. We all know that the Chinese are great medicine users, and the patent medicine vendors are already exploiting this vast country and will increasingly do so. Millions of money will be made out of this trade much to the detriment of the pockets and the health of the Chinese. I am informed that in Shanghai this is already a great curse, and the curse will spread widely and rapidly, for the vendors know the gullibility of the Chinese and also the value of advertising.

In relation to this question there are several things missionaries can do:

1. All of us can discourage Chinese from buying medicines on the streets, and, instead, refer them to some medical missionary, with whom they may consult about disease or medicine.
2. All hospitals should have a supply of a few such standard preparations as are most commonly needed, and which can conscientiously be recommended to those who wish to buy.
3. And I think either the missionary body as a whole, or possibly the China Medical Missionary Association, should memorialize the government of China warning them of the danger and making some specific recommendations.
6. **Charges for Operations.**—Not many medical missionaries make regular or definite charges for operations, but some of the older men suggest at least a small fee for every operation, on the ground that, like drugs, operations will be more appreciated if paid for. Of course there are many poor who cannot pay anything beyond their food money, but experience suggests that it might be wise to establish, say, a $1.00 fee for all chloroform cases and collect it in advance whenever possible. Of course private ward patients should pay more. One physician suggests from $5.00 to $50.00 for such. Well-to-do patients who require a major operation should, in all reason, pay well for it. Some surgeons even go so far as to refuse to touch the case if the patient will not pay a good fee.

As surgery has practically been unknown to the Chinese, and is, perhaps, above all else the most tangible to them and the most satisfactory to us, of all lines of professional work, I am of opinion that the Chinese should be made to feel that some monetary recognition of such a boon, according to individual ability, is certainly expected. Our surgical cases, as a rule, require much more nerve energy, expenditure of time and outlay of money for instruments and dressings than our other cases, and the Chinese should know that something more than mere thanks and gratitude is expected.

7. The judicious use of a subscription book is, with many, quite a source of income. Some hospitals report from 1,000 to 3,000 taels from this source alone. Officials are the “fathers and mothers” of the people, and should therefore be expected to help provide for the multitudes of poor subjects from whom so much of their income is derived. But not officials alone, but also gentry, merchants, and other moneyed men should be appealed to, whether they have been patients or not.

Get some high official to write a preface for the subscription book and once yearly send an honest and presentable collector around to solicit subscriptions.

For most of the year the book should be in the dispensary, constantly available, and hospital and dispensary patients should be encouraged to give. But we should be careful not to “hold up” patients, but rather to secure willing subscriptions. We then have both money and goodwill; the latter a very important asset.

The above mentioned are the chief sources of income from the Chinese themselves. There may be others of which I am not aware. But I am fully convinced that it is right, reasonable, and wise to secure all we can from this source if we do it tactfully and charitably.
WHERE MEDICAL MISSIONS FAIL.

By Harold Balme, F.R.C.S.

It is now nearly three years ago since, on one hot summer's morning, a messenger arrived at the hill station where some of us missionaries were staying and asked that a doctor would go off at once to a village ten or fifteen miles away, where a man was lying seriously wounded. There was a medical missionary who had been in China three or four years, and who was at that time stopping at this summer resort, but unfortunately he was only just recovering from a serious illness, and was absolutely unfit to attempt so long a journey over the hills, and so, although new to the country and language, I essayed to go in his stead and do the best I could for the sick man.

Arriving at the village after some three hours' journey, I was greatly struck by the marked friendliness of the people. It was not merely that they extended to one the ordinary Chinese hospitalities. More than that; they seemed perfectly willing for me to do just whatever I thought best for the wounded man—stranger as I was to them all—and even consented to our proposition that the patient should be carried back with us all those miles across the mountains. When the time came for us to start, the whole village turned out to see us off (without, apparently, the slightest suspicion or ill-feeling), and, as I wrote at the time, if ever one could have wished for a grand opportunity for an open-air meeting, one had it then, if only the language had not been the difficulty.

What was the cause of this friendliness? At the time I could not discover, but shortly afterwards I learned the secret, for it transpired, that some years before the village had been visited in a similar way by a medical missionary from this city, who had been the means of saving a man's life.

The patient stayed with us three or four weeks; many of the villagers coming up from time to time to see him, and at length, by God's blessing, returned home quite well.

This can hardly be called a particularly felicitous illustration with which to commence an article bearing such a title as the above, but the true significance of the incident will appear later, and, meanwhile, may we consider two or three very important facts with regard to the employment of medical missions as a means of carrying out the great missionary command of the church?
MEDICAL MISSIONS AS A MISSIONARY AGENCY.

More than half a century has passed since this form of missionary agency began to be recognized as such, and the day has gone by when elaborate arguments need to be brought forward to justify its existence. In all parts of the world there are men and women who have been brought into the kingdom of God through mission hospitals, and in many a wild region the vast, unassailable barriers of age-long superstition and fanaticism have been pierced by the touch of healing and the kindly word. Even to this day there exist wide tracts of territory where medical missions are the only form of Christian propaganda that dare to be employed, and it was but a short time ago that Mr. J. R. Mott, in his great Albert Hall speech, gave it as his opinion that the whole of the Turkish empire might well be given over to medical missions and medical missions alone.

But in comparing this method of mission work with others in vogue there is one outstanding feature which cannot be overlooked.

MEDICAL MISSIONS ARE EXTREMELY COSTLY.

1. They involve a considerable expenditure of money. The Medical Mission Auxiliary of the C. M. S. during the last year spent over £30,000 in the support of some fifty hospitals, whilst the only other societies possessing a separate auxiliary (namely, the B. M. S. and B. Z. M.) collected about £8,000 for the ten hospitals, etc., which they represent. Probably the expenditure of the other societies upon their medical mission stations would be in very much the same proportion.

2. They involve a considerable expenditure of time. All are agreed that if medical or surgical work is to be undertaken at all in the name of our Lord and Master, it must be done well, and this demands a very great sacrifice of time. There are many stations where overworked doctors are at the beck and call of sick men and women from early to late, so as to leave leisure neither for adequate language study nor for any direct efforts at evangelistic work. The careful examination and treatment of patients, the training of native helpers, the teaching of students, the organising of the various departments of the hospital,—these, together with the use of such opportunities as one may have for keeping up the standard of one's medical knowledge, and engaging in such research as circumstances allow and as the mass of valuable clinical material affords, crowd up the day of a medical missionary to such an extent that in many instances known to myself
Where Medical Missions Fail.

he seems to have little or no spare time whatever for the very object for which he became a missionary.

3. They involve a considerable expenditure of mental energy. Rudyard Kipling, in his amusing speech at Middlesex Hospital last year, remarked that the medical profession possessed the greatest privileges of any class of society—and the highest death rate! Whatever causes may be contributory to this latter "possession" probably not the least important is to be found in the mental strain and constant anxiety which are unavoidably associated with the work of anyone who holds the lives of others in his hands. And in a foreign country, where the medical missionary often enough has no one with whom to consult, and may be called upon at any hour of day or night to take prompt, decisive action which may save, or hazard, the life of a human being, this mental strain is necessarily greatly increased.

Now frankly, is it worth while to make such an outlay of money and time and strength? Funds which are at present employed for the mere relief of physical suffering might be devoted to direct evangelistic work, whilst the time and money which are given so willingly—often so prodigally—to the careful diagnosis and treatment of disease, might be used in the preaching of the Gospel, the translation or circulation of Christian books, or the training of the young in the knowledge of God.

IS IT WORTH WHILE?

Students of missions, and, above all, missionaries themselves, can give but one answer to such a question. Emphatically it is worth while. But why? Let an incident supply the answer.

Some three years ago the senior medical missionary of this province was taking a long journey through a district some distance away, where no missionary work had ever been attempted. Arriving at a town not far from the Yellow River he and his colleague received a most unfriendly reception from the people; the reason for this being that two foreign merchants had visited the place not long before and had treated the inhabitants with considerable rudeness, even driving away with their whips any who came near them from curiosity. So deep was the impression which this treatment had left upon the people that the two missionaries were refused admission at practically every inn, and when at last they did get entrance into one of them, the people were most ungracious, and regarded them with sullen, suspicious looks.

After a short time spent in this way, the military official of the town came along to the inn where they were to see what was happening. Entering the courtyard, "clothed in a little brief author-
ity," and doubtless intending to make that authority felt, his whole aspect changed as soon as he caught sight of the doctor. Bowing with marked politeness, he greeted him with most genuine friendliness. At first the missionaries quite failed to understand this sudden turn in their affairs, but, seeing their perplexity, the official said: "Why, don't you remember me? I was a patient in your hospital so many years ago, and you cured me." In a short time the news spread, and not long afterwards that official was standing on the streets by the missionaries' side, while they preached and sold books to an attentive and friendly crowd.

It is just such incidents as this which show us why medical missions are worth while. And it is just this, because the expenditure of all this money and time and strength, considerable as it admittedly is, can purchase for us an advantage which can hardly be got in any other way, and which, if acted upon, will repay such an outlay over and over again.

Now, we none of us object to a heavy outlay if it enables us to obtain some unique opportunity procurable in no other way; on the contrary, we regard it as an excellent investment. But if circumstances prevent us from utilising the opportunity so purchased, we may well look upon our expenditure as having been to some extent in vain. And this, I believe, is just the point at which so many of our medical missions fail. Labour and time and money are poured out to win this special advantage; the advantage is won, but only to be lost again before one's hands have closed upon it.

**THE SOURCE OF FAILURE IN THE WARDS.**

This is no fancy picture. During the past year I have had an opportunity of visiting fourteen medical missions and of conversing with representatives of three or four others, and it has been only too obvious how real a danger this is everywhere. In many cases the doctor finds his time wholly taken up with the hundred and one details which crowd into each day's work (his native helpers often enough being too few or too slack to render very efficient help), so that the result is that with the exception of an occasional, and possibly more or less perfunctory service, the new patient, whose friendliness and confidence have already been won by the medical skill and kindness received in the wards, never gets into real touch with that "Jesus" whose name the hospital bears, and so far from receiving the revelation of God's love into his heart, he goes back to his home but little better than when he came. And yet all that time there has been
daily in the wards one of the finest congregations which a missionary
could ever hope for—men from all parts of the country and
new to the Gospel; men with plenty of leisure to listen and free from
distraction; and, lastly, and best of all, men who have already begun to
respond in some little way to the kindness they have been receiving.
And the precious opportunity passes because there is no one to take
advantage of it.

**SOURCE OF FAILURE IN THE VILLAGES.**

Again, let us take the case of our own hospital. In the course of
a year our beds are occupied by scores of men who have never before
heard the message of salvation. They come to us, many of them,
from places far distant, drawn by the simple fact that some relative
or friend, or somebody in the neighbouring village has been cured at
the hospital, and in this was they too get emboldened to try the
risky experiment. Thus it comes to pass that many of them, on
arriving, are as strange to us and our doings as they are to the Gospel
we preach. But a few days' residence in the wards, and the strange­
ess wears off, and as, by God's blessing, their bodily condition begins
to improve, their minds and hearts begin to open to that message
which is daily unfolded to them; and in many instances, when the
day comes for them to leave the hospital, they not only have become
our friends, but have also begun to take a real interest in the Old,
Old Story.

So far, so good—but what then? In our own case we have at
present sorrowfully to admit that the great proportion then go entirely
out of the sphere of missionary influence. They return to villages
where no mission work exists, and in the present state of our work we
are quite unable to follow up what has been begun.

What does this really signify? Surely if it means anything at all
it means just this—that the unique advantages which are thus being
won by the hospital, at the cost of so much money and time and
strength, are being dropped just as they are in one's grasp, and that
whereas our medical mission work is being blessed by God to open up
village after village, the doors thus opened are allowed to creak slowly
back upon their hinges for want of anyone to enter.

And this, too, is the real lesson of the incident with which this
article opens. For fifteen years that village had been ready to receive
the Gospel, if only the medical missionary who had won their confi­
dence, or someone associated with him in his work of healing, had been
able to visit them. But no one could go, and the opportunity had
never been seized, and even since the second patient was treated it has unfortunately been exactly the same.

This, then, seems to be where so much of our medical mission work fails. We put forth our effort, we obtain our advantage, but we fail to use it when obtained. And it is to the solution of this problem that the minds of all friends of medical missions ought to be directed.

**HOW TO OVERCOME THE FAILURE.**

Many suggestions will be forthcoming. "Cut down your work," says one good friend, "and refuse to see any more patients than you can do full justice to, both spiritually as well as medically."

"Cut down the work and refuse to see them!" Will you come and do it? Or will you tell us how we can do so, for I for one certainly do not know? As the Chinese say: "The door of charity is hard to open, but it is also hard to shut!" How are you going to leave your hospital and go off for several days into the country to look up old patients if it means that your work will be left without any superintendence, or that an already overworked colleague will have more than he can possibly cope with? How are you going to refuse patients who have travelled for days to get the hospital, but who would swell the numbers above your limit? How are you going to refuse to try and save a man's life because the summons for help happens to come at a time when you ought by right to be doing something else?

No! plainly, the solution is not to be found here, or at any rate not alone here. What then can be done to meet the difficulty and to enable us to make the fullest possible use of the wonderful opportunities we gain? There are two suggestions I would like to offer in the way of solution.

**URGENT NEED OF LARGER MEDICAL MISSIONARY STAFFS.**

In the first place I believe it ought to be a matter of deliberate mission policy so to staff our hospitals as to enable each medical missionary to spend a fair proportion of his day in direct, personal, evangelistic work in the wards, and also to allow of one doctor being set free, every now and again, to make itinerating journeys into the country district, partly with the object of doing medical evangelistic work, but more especially for the purpose of looking up old patients and continuing the teaching which has been started in the wards. I am aware that in some medical missions some such practice as this already obtains. But what of the vast majority? It is simply impossible.
It is quite clear that if this proposition is to be fully carried out, the one-doctor standard of medical mission hospital staffs is doomed at once, and even the "two-power" standard will not hold good in the case of large, busy stations. Emphatically we must have more men. But how? Ideally, of course, by the enlisting of more workers, each hospital being so manned as to leave the doctors sufficient time for the faithful discharge of the missionary side of their work, both in the wards and by means of occasional itinerating tours. Until the church at home awakes to the greatness of the need, and sends out many more volunteers to fill up these terrible gaps, our medical mission work can never be called truly efficient.

But are we to wait till this ideal position is realised? Even if the supply of medical men and women coming forward is insufficient for the purpose, are there not other ways by which this source of failure can be, to a great extent, eliminated? For instance, there are many places where existing hospitals belonging to different societies might be combined with great advantage. In one Chinese city that I am myself acquainted with there are three mission hospitals, each staffed by one doctor only. What a lamentable waste of time and strength, to say nothing of materials and money! How much might be saved if those three men could combine and form one well-manned medical mission!

A NON-MEDICAL MISSIONARY FOR EACH HOSPITAL.

But there is another way by which our object might be gained, and this brings me to my second suggestion. At the present time most medical mission hospitals include in their native staff one or more evangelists, whose duty it is to preach to the out-patients in the waiting hall, to teach the in-patients in the wards, and to sell Scriptures and other books to any who will buy. In some cases also these men do a certain amount of colportage work, and include with it the visiting of any old patients who may happen to be in the district. The value of such work, in the hands of some men, cannot possibly be overestimated, and there is no doubt that they do a great deal towards saving our medical missions from failure. But, whilst setting high store upon this work, there is no doubt that it would be rendered infinitely more effective if the missionary himself could take a large share in it. This, as already mentioned, necessitates more men; but, if the supply of doctors will not suffice, why confine it to the medical man? Certainly if the medical staff can be made large enough, the doctor himself will naturally have a special entrance into the affections
of the people; but, considering the greatness of the opportunity and
the difficulty of bringing up our medical staffs to the standard required
for the full use of our opportunities, I would like to urge another
suggestion, and that is that every mission hospital staff should include
one non-medical missionary, whose whole time should be devoted to
such work as is sketched above. Day by day he would be spending time
in the wards, getting to know the patients, showing sympathy and kind-
ness during their sickness, and gathering particulars about their home.
Being so constantly among them, he would be looked upon as their
friend, almost or quite as much as the doctor who was treating them,
and who would probably be unable to spend anything like as much
time with them. Then during the slacker times at hospital, he could
take tours of itination in company with one of the native evangelists,
so as to look up these old patients and get an entry into the villages,
where, we trust, the care of the sick man had already created a
friendly feeling. It is true it would not be quite the same as if the
doctor himself were able to visit the place, but until the medical staffs
are brought up to their standard there is little or no chance of the
medical missionary undertaking such work, and the fact of such a lay
evangelist having been in daily attendance at the hospital when the
sick man was under treatment, should secure for him almost or quite as
hearty a reception.

In similar manner he could accompany the doctor to any village to
which the latter might be summoned, and whilst the patient was being
attended to, he would be chatting to the friends and onlookers. And
if, by God's blessing, the patient's life is spared, as in the incident
referred to above, he could come back again and again to that village,
and would always be associated in the minds of the people with the
cure which his friend the doctor had been able to effect.

In some respects such a man would have special advantages from
the very fact of not being a medical. Let me explain my meaning.
Suppose, for instance, one has a spare half-hour, and wishes to use it
simply and solely for spiritual work. You go across to the wards
determined to have a quiet chat with some of the patients. You pick
your man, and sitting by his side, attempt to draw him into conversation.
Nor is it difficult to induce him to talk, but it is not the conversation
you are seeking for. It only needs a glance at the man to see what is
passing through his mind. "Ah," thinks he to himself, "now I
have a nice opportunity of just explaining to the doctor what my
disease really is. When I came to the hospital, he asked me so few
questions that he cannot possibly understand what the root of the
trouble is, so I will just tell him." And with that he launches forth into a detailed description of how he had, on a certain occasion, "made a great deal of breath" with his mother-in-law, because she paid half a cash too much per catty for the millet, and how he had just been eating some dates at the time, and so of course the "breath" had got mixed with the dates in his inward mechanism and had produced a fire which had caused the lump to grow in his left elbow, etc., etc. You try again and again to switch him off, but even when you have exhausted his long and ingenious account of his own ailment, it is only to be consulted about the mysterious complaints of all his relatives down to the forty-ninth cousin and the advisability of bringing them to the hospital. It sometimes needs much patience before one can turn his thoughts to the subject about which you are longing to speak.

Now with our non-medical worker there is little or none of this. He listens sympathetically to the story of the man's trouble, but as he takes care to explain at the outset that he is not a doctor, and does not understand the treatment of disease, the patient finds it is not worth while to go into very elaborate details, and the way is left open for conversation on other matters.

If this suggestion be acted upon, and such a helper appointed to each hospital, the medical missionary should in no way feel that it is unnecessary for him also to use all his opportunities for directly spiritual work. But though he could not take full advantage of these openings, owing to his lack of time, he would have the infinite joy and satisfaction of knowing that they were not being lost, but that others were entering into his labours.

In saying all this one does not forget that it is the Lord of the Harvest alone who watches over the seed sown, and that no work faithfully and sincerely performed in His name can ever really fail or be lost. But does that absolve us from the duty of wisely laying our plans, or give us any license to neglect any method which will enable us better to use our opportunities? Surely not. Among the men who rallied round the exile David, determined to make him king, were those "who had understanding of the times to know what Israel ought to do." And shall we, who are seeking "to make Jesus King" where at present He is not known, be less than they?
In Consultation.

PANGKIACHWANG, October 29th, 1909.

DEAR DOCTOR: Will you (or the JOURNAL) kindly "lend a light" and advise us how to prepare liquor cannabis indicæ? Potter endorses it highly for certain pulmonary ailments, considering it superior to the extract. A quantity of the dried drug has been sent us by mistake, and we propose to use it, but so far books and friends alike have been unable to furnish the method of making it. While we could experiment, it would doubtless be better to use a tried method. The liquor avoids the undesired resin. Many thanks for the anticipated aid.

Allow a word of commendation concerning that grand 83-page thesaurus on medical education in China—the September JOURNAL. If any missionary physician can look it over and not feel his back-bone grow stouter, or if he can read it carefully and not feel inspired and uplifted to do better and more Godly work, it is time for him to take a long furlough.

Dr. Graham writes asking about dionin in corneal opacities. We have not used it here, but for some years here and elsewhere have had most satisfactory success with protargol, 5 to 10 per cent. in water and glycerine solution. It has taken months to help much in some cases, and in one young woman, who came almost blind, it was a year before we were willing to discharge her. She got a lot that she had not come for, and could read quite fine characters on discharge. We always have some cases on hand, and all receive at least some benefit from the use of protargol, applied twice a day in severe and even moderately severe cases.

Sincerely,
F. F. TUCKER.

TALI FU, September 2nd, 1909.

DEAR DOCTOR: Many thanks for your kind letter of the 1st of June. It came via Ichang and took nearly two months to reach me! If you are writing again please add to the address, "Via Mengtze," and it will get here in one month.

It was very kind of you to order the book on tropical medicine, and I thank you for the favour.

I send you herewith a specimen of tape worm. The patient took fifteen minims of male fern on an empty stomach on Tuesday evening,
and the next morning passed this worm. It was all broken up, and I am only sending part of what he brought. I am afraid the head is missing, but you will be able to tell the variety without it.*

My rule is to give male fern in fifteen minim doses on three successive evenings and to keep the patient on liquid diet.

In regard to your campaign against patent medicines I am afraid you are working in a hopeless cause. I was on the street the day before yesterday and saw some Cantonese merchants with patent medicines galore. They were put up by a Japanese firm and had directions in both Chinese and English on the outside. On one package I read, "The best tonic to be taken every day to keep and restore the system. Specially useful in cases of emergency." About as clear as mud! It seems to be one of the perversities of human nature to like to be gulled in this way. *

With best wishes,

Yours very sincerely,

W. T. Clark.

*NOTE.—Tenua Solium.—Ed.

Germantown, Pa.,
August 20th, 1909.

Dear Doctor: Your recent letter was read with interest by Mr. Campbell, Mr. Mulford, and myself, who beg to compliment you on your campaign against the "Pink Peril."

What has always seemed to me a strange thing is that the medical profession appears to have forgotten completely that pharmacy is a branch of medical practice, and therefore should be under the control of the medical profession.

It is doubtless true that the vocation of the apothecary has existed from times immemorial, but the ancient apothecary was a kind of quack doctor, who recommended his nostrums to an ignorant and credulous public.

Pharmacy, on the other hand, is the art of preparing medicines in accordance with the requirements of scientific drug therapeutics. It is one of the pharmacologic arts, which arts consist of pharmacognosy, or the art of selecting medicinal substances; pharmacy, or the art of preparing, preserving, and dispensing the same; pharmacodynamics, or the art of testing medicines on healthy tissues; and therapydynamics, or the art of testing the action of medicines on diseased tissues. The knowledge of these arts, when reduced to law and embodied in system, constitutes the science of pharmacology.
This statement clearly demonstrates the relation of pharmacy to medicine and makes it apparent that a medical education, including technical, laboratory, and clinical training, is a necessary qualification for the practice of the pharmacologic arts. Therefore it follows, as already stated, that pharmacy should be practised under the control of the medical profession.

The above statement is not relished by a good many people, because it interferes with their commercial interests. But the public is commencing to wake up and is demanding that the medical and pharmaceutical professions shall "make good." Because they are not making good, the public is drifting into Christian science, osteopathy, and other fool delusions.

I have devoted a life time in an endeavor to wake up the pharmaceutical profession to its responsibilities in this matter, but without pronounced success so far as the pharmacists themselves are concerned.

When I organized the scientific department of Parke, Davis & Co., and thereby became the father of the scientific departments of the manufacturing houses, my effort accomplished one thing, and that is, it gave me a medium of publicity when the medical and pharmaceutical journals and the lay press refused to publish my articles. Parke, Davis & Co. distributed more than thirty tons of literature in the campaign against the nostrum business in 1882, 1883, and 1884. The educational effect of this upon the medical profession is now commencing to bear fruit. By means of their detail men Parke, Davis & Co. distributed the seed all over the United States. Then they dropped their campaign, and little by little have drifted away from the position assumed by the house when Mr. George S. Davis was its manager.

I have made several attempts since 1885 to renew this propaganda, but without success until 1901. Then I organized the National Pharmacy Company in California for the purpose of supporting a national bureau of medicines and foods, which was started for the purpose of standardizing materia medica products.

This plan was very successful for a time, but unfortunately one of the houses that was taken into the combine was guilty of sending a large consignment of quinine tablets to Manila, which by analysis of the Manila Board of Health proved to be short on quinine. Of course those who opposed the campaign of education in behalf of a national bureau of medicines and foods did all in their power to throw the National Pharmacy Company into disrepute, and were in a measure successful.
In Consultation.

So it was suggested by Dr. Philip Mills Jones, of San Francisco, that we reorganize the bureau under the American Medical and Pharmaceutical Associations. A joint committee was appointed for this purpose by the two associations and reported favorably. The large manufacturing houses which were opposed to materia medica standardization succeeded, however, in preventing the organization of such a bureau.

Then the American Medical Association established a council on pharmacy and chemistry and copied the rules I had formulated for the national bureau of medicines and foods, using same with some modifications as the base of the work of the council.

The modifications of the original bureau plan omit what I considered essential features, namely, the recognition of the necessity of practising pharmacy as a profession and the conducting such a profession under the same ethical requirements as the practice of medicine. The council classified pharmacy as a commercial business.

By reading Reid Hunt's address as chairman of the Secretion of Pharmacology of the American Medical Association, published in the August 14th issue of Journal of the American Medical Association under the title "What the Individual Physician can do to improve the Materia Medica" you will see that he has presented the same arguments I have been using for the last thirty years, except that he falls short of my definition of pharmacology and pharmacologic practice.

Reid Hunt is a prominent member of the council and one of the most able practitioners of pharmacodynamics in this country. He is a graduate of the Johns Hopkins University, under Prof. John Abel, and is the chief of the Division of Pharmacology, Hygienic Laboratory, U. S. Public Health and Marine Hospital Service. I am very glad to have him advocate in such an able manner the principles for which I have been fighting, even though he does not comprehend the subject in the light in which I have been presenting it.

Unless the pharmacologic arts are to be considered as part of medical practice and carried on professionally, of what use are the colleges of pharmacy?

I am sending you by same mail, under separate cover, a number of reprints of papers I have written at various times, relating to the subject to which I have called attention in this letter.

The paper entitled "Proposed National Bureau of Materia Medica," reprinted from the Journal of the American Medical Association for April 27th, 1901, was endorsed editorially, and in a personal letter Dr.
Simmons, the editor of the *Journal*, expresses himself as surprised and delighted with my presentation of the subject.

The paper entitled "The Proper Introduction of Materia Medica Products to Science and Brands of the same to Commerce," reprinted from the *Therapeutic Monthly*, May, 1902, was said by Mr. George S. Davis (manager of Parke, Davis & Company) to be the most complete statement on the subject that he had ever seen.

It is interesting to know that the courts of this country and Great Britain are becoming more and more defined in their position relative to the trade-mark question. I agree with Reid Hunt that there should be one name for each materia medica product, and that said name should be conformable with scientific nomenclature. But I have realized the importance of protecting the various brands by trade-marks to be used in conjunction with the scientific names of the products for two reasons.

First, the recognition of such brand names by the medical and pharmaceutical professions would do much to protect the commercial interests of the publishers of the medical journals by permitting them to accept advertising of brands under brand names in their advertising columns, and also to accept in their reading columns scientific articles relating to the products themselves without one conflicting with the other.

To make clear this distinction between brands and brand names on the one hand and products and product names on the other, take condensed milk, for an example. There would be no conflicting of interests if a medical journal accepted a contribution on the general subject of condensed milk to be published in its reading columns, and at the same time accepted an advertisement of the eagle brand of condensed milk in its advertising columns.

Nor would there be a conflicting element in accepting an article on the subject of tuberculin from Koch, the discoverer and introducer of tuberculin, and at the same time accepting an advertisement for the Koch brand of tuberculin.

Koch's agents have been attempting to obtain a monopoly of the manufacture of tuberculin by claiming that the word "tuberculin" is a trade-mark and therefore the private property of Koch and his agents. If Koch should succeed in maintaining his claim he would seriously injure his scientific status, because then it would be impossible to discuss tuberculin without discussing Koch, for a trade-mark is simply a *nom de plume* or pseudonym of the manufacturer, used by him as his commercial signature to designate his brand from other brands of the same product.
I am sending you a copy of the Constitution and By-Laws of the American Pharmacologic Society, organized for the purpose of harmonizing the interests of the medical and pharmaceutical professions, including the medical and pharmaceutical press and the manufacturing houses engaged in the pharmacal and chemical industries.

This society has temporarily suspended operations, because it advocates my original plan, with which the American Medical Association's plan is not entirely in harmony. As we have no desire whatever to hinder the good work of the A. M. A., we prefer to wait until the Council on Pharmacy and Chemistry comprehends the plan in its entirety before we push the organization. If the council is willing to adopt the entire plan there will be no necessity for an American pharmacologic society, and in that case we shall drop it. If, on the other hand, after waiting a reasonable length of time, the A. M. A. does not wake up to its opportunities, we may secure the cooperation of some of the leading medical journals and manufacturing houses and go on with the plan as outlined in the constitution and by-laws referred to.

The papers entitled "The American Pharmacologic Society and Controlled Materia Medica Products," reprinted from American Medicine, May, 1906, and "The Solution of the Proprietary Medicine Question," reprinted from American Medicine, May, 1907, refer to the plan of the American Pharmacologic Society.

The paper entitled "The Relation of Pharmacists to Physicians and the Relation of Pharmacy to Materia Medica and Drug Therapeutics," reprinted from American Medicine, July, 1901, contains much interesting data relative to patents and trade-marks as applied to medicine.

Hoping that these five papers may all prove of interest, and with kind regards, I am,

Very truly yours,

F. E. Stewart.
The following report covers the period of time commencing April 1st, 1907, and ending May 31st, 1909.

The winters have been mild and the snow fall very small; practically none during the last one. The temperature was not low enough to allow ice to form, and only a small quantity of skin ice has been stored.

The maximum summer temperature has not exceeded 99° Fahr. in properly shaded places. For about three weeks or a month at the end of the season the temperature is steadily maintained above 82° Fahr. through the entire twenty-four hours.

During the summer of 1907 the supply of water failed on account of prolonged dry weather. To in some measure meet this lack, water was brought from Shanghai in the tanks of one of the tri-weekly steamers and distributed through the good offices of the Acting Commissioner. The canals were quite dry and hard-baked by the continued sunshine.

As there was an epidemic of cholera prevailing, the heavy rain fall, which later ensued, undoubtedly did a most valuable service in preventing an increase in the distribution of the outbreak. It is somewhat remarkable that this epidemic terminated as quickly as it did without a marked fall in the atmospheric temperature.

Statistics of the mortality resulting from the epidemic are not available. The severity of the type of cholera and its frequency may be imagined from a saying current among the Chinese that "there was a death every two minutes" for some days at least. Most of these cases were in or near the native city. The fatalities were said to occur most frequently just outside the gates of the city. A few cases were reported in the settlement, but only a small number made application for foreign medical treatment at the hospitals.

There did not appear to be any distinct focus of origin of the infection, and deaths were taking place in different localities at the same time. The Chinese staff of the post office lost one member by cholera.
Enteric or typhoid fever appears sporadically from time to time. One tidewaiter, with this malady, was taken to the Shanghai General Hospital, where he soon succumbed to the severity of the disease. One Chinese lighthouse attendant reported too sick for duty, and died after a few days at his home.

Diphtheria.—The few cases known to have existed have resulted fatally where treated by native doctors and without antitoxin. All the cases in which antitoxin was used made a rapid recovery.

Parotitis.—An epidemic of a disease resembling mumps, but without any of the common sequelae of metastasis, prevailed at one season among the Chinese. The native doctors did not have a name for the disease, and considered it to be unlike mumps. (Probably glandular fever.—Ed.)

Small-pox is endemic at all seasons of the year. Its presence is most commonly made known by the appearance of the convalescent ones upon the streets.

Vaccination is performed gratuitously at the police station, and considerable numbers have presented themselves or their children for this purpose, especially during the months of spring.

The vaccine used has been that prepared at the Municipal laboratory of the health department at Shanghai, and it has proved satisfactory.

Miscellaneous Diseases.—The following named diseases have been met with: Influenza, one; chronic alcoholism with delirium tremens, one; tapeworm, one; abscess of liver, two (one death); beri-beri, one (death); scarlet fever, one, contracted at another outport. A few mild cases of varicella, pertussis, rubeola, and intestinal parasites have been noted.

Suicide.—Two attempts at suicide by taking Fowler's solution of arsenic have been frustrated by prompt antidotal treatment. No cases of opium poisoning have come under treatment unsuccessfully. During the last year no instance of an attempt at self-destruction by this drug has been met with.

Childbirth.—The pregnancies occurring among the married foreigners resident here have terminated as follows: One miscarriage in a first pregnancy; one abortion in a second pregnancy, associated with uncontrollable vomiting; one premature labor at the seventh month of a first pregnancy, the child and mother doing well; one first pregnancy late in life required instrumental delivery on account of uterine inertia; one precipitate labor, terminating a
third pregnancy; one transverse presentation with placenta praevia, the placenta being completely extruded at commencement of labor. Decapitation and instrumental delivery were rendered necessary on account of a uterine constriction ring. The mother had a slow convalescence. One "dry" labor in a first pregnancy, one precipitate labor in a third pregnancy, one normal delivery in a second pregnancy. Among the remaining labors, not personally attended, two were probably normal deliveries.

Rare Forms of Fever.—In a mission school for girls there has been, on three occasions, a group of girls sick at the same time with an unclassified form of fever. The most prominent symptom was pyrexia, maintained for from four to fourteen days at 101° to 105° Fahr. Lassitude and anorexia were not marked. Gradual recovery by lysis followed without sequela. Quinine and phenacetin had no especial effect in lowering the temperature. Microscopic examination of the blood did not disclose anything abnormal.

Malarial disease is prevalent. Only the tertian variety is known to exist. The type is a benign one, although pernicious forms resulting in death are occasionally found. Over thirty per cent. of all the certificates issued for physical unfitness for duty are due to this illness.

This exceeds the total number of disturbances and diseases of the digestive system which form a large proportion of the causes for absence from duty. The number of working days lost to the service in twenty-seven months is equal to the absence of one man from duty for one year, solely from malarial fever.

One reason for such a frequent occurrence of this disease is due to the fact that the water supply for household purposes is stored in open kongs which stand near the dwellings. These are the breeding places of mosquitoes, whose bite, when themselves are infected, causes the typical paroxysm of this fever. Another reason is the wellnigh universal neglect to provide the doors and windows of dwelling houses with fine mesh wire screens for excluding insects. While the unfavorable local conditions cannot at present be entirely removed a distinct improvement might be made by having all water kongs provided with well-fitting covers or fine wire screens. The wire gauze for this purpose should be so woven that no opening between the wires should exceed one-twentieth or one-sixteenth of an inch square. This is fine enough for protection for doors and windows and yet admits sufficient light and air. The keeping of a few gold fish in a water kong will pretty thoroughly provide for the destruction of the undeveloped mosquitoes.
The periodical administration of quinine with the idea in mind of preventing the attacks of fever seems to be sufficiently well proven. The dosage however is a matter which is not definitely settled. Seven grains of quinine, taken at bed time, two or three times a week, is probably more efficient than a daily dose of two to four grains. By many authorities the first mentioned dose would be considered a minimum one.

The prevalence of abnormally low temperatures in those who have been subject to malarial fever for a number of years is noted. Morning temperatures of 94° to 97° are common. There is an accompanying depression of spirits and disinclination to undertake any form of mental or bodily activity. Occipital headache and tenderness on pressure over the cervical spine is sometimes found in these cases.

It is suggested that the new quarters for the members of the staff at this port be provided with suitable wire gauze screens during the months when mosquitoes are present.

It is worthy of recommendation that the men on duty on shore and patrol duty on the river at night should take prophylactic doses of quinine as above noted.

NINGPO, May 31st, 1909.

**Book Reviews.**

The *Morphia Habit and Its Voluntary Renunciation* by Oscar Jennings, M.D. London: Bailliére, Tindall, and Cox, 8 Henrietta St. Demy 8vo. 492 pages. Price 7/6 net.

The sub-title of this book is, "A Personal Relation of a Suppression after Twenty-five Years' Addiction, with notes on additional cases." The book is a very sane one and a most readable—a sort of a modern De Quincey's "Confessions." The author is convinced that in the morphia habit, which is a psychosomatic affection "in which the mental and physical troubles are interdependent, conditioned the one by the other, the success of therapeutic measures, properly so called, depends on the mentality of the patient and reciprocally." To the hyocin, atropin, duboisin, piturin, and other alkaloidal treatments he gives merely knock-out credit with no prospect of permanent cure. "Renunciation must be effected chiefly by restoration of will, and nothing can be worse than restraint or compulsory repression." Psychologic and physiologic treatment and a suitable moral atmosphere.

The author's physical treatment consists of heart tonics when indicated, agencies for neutralising acidity, and the Turkish bath. Hypnotics should be used as little as possible. From the physician's
The China Medical Journal.

standpoint the absolute confidence of the patient is essential and an untiring and hopeful patience on his part.

For those of us who practice in China the book is well worth careful reading, as there are many practical suggestions for the care and treatment of our many opium habitués, as well as for the increasing amount of morphinomania which we are meeting. Z.


The navy is a good laboratory for the study of hygiene; conditions therein being even more adapted to the point than are found in the army. And from navy sources have come many of our best studies for disinfection, food preservation and supply, and personal hygiene, ventilation, and other kindred matters. The present volume makes naval vital statistics the basis of the navy's hygiene. It deals with air within and without the ship, light within and without the ship, the water supply and drainage, the navy's food and clothing, the disinfection of the ship, and naval recruiting.

The standpoint of the book is distinctly practical, and a good deal of valuable material is included in the way of water examination, the preservation of foods, and the like. There is an interesting set of excellent coloured plates on the natural colour and appearance of healthy beef. And as one turns the pages, such subjects as the recognition of poisonous fishes in different waters, and the like, compel a rather fascinated attention. There is an immense amount of material that might easily be applied more broadly than to the navy alone, as for example to hospital management, food supply, disinfection, and so on. And considering the limited number of works on this latter subject, considerable profit might be found to the ordinary hospital practitioner in a perusal of this work. For the navy no doubt the book has a wide range of usefulness. Z.

Books received for later review:

Contributions to the Science of Medicine and Surgery, by the Faculty N. Y. Postgraduate Medical School and Hospital. 1908.

Aids to Microscopic Diagnosis, Knox. Baillière, Tindall & Cox.

Surgical Anatomy, MacEwen. Baillière, Tindall & Cox.
The yearly subscription to the China Medical Missionary Association is 12 Mex., payable in January of each year. This includes the Journal and postage on the same, whether local or foreign.

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

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

A PRAYER FOR SURGEONS.

LORD, who am I, to put my finger where only Thine has been before! Who am I, to tamper with the wondrous mechanism of Thy noblest creation!

Yet hast Thou shown to man ways by which, after long discipline, he may set right some of the wrong which man’s ignorance and weakness have done him in his own body.

For the measure of knowledge of Thy laws which Thou hast granted to me, I give Thee most humble and hearty thanks, and most earnestly beseech Thee for grace that I may shirk no discipline and spare no labor which may make me a better instrument for the relief of human woe.

And when Thou dost graciously choose to work Thy healing miracles through me, grant that in all humility I may ascribe to Thee the power and the glory. Or, if Thou canst not answer the prayer of my hands for some suffering body, grant that without bitterness both I and the sufferer may accept Thy will.

Help me, whether in success or failure, to read aright the lessons Thou would-est teach, not to be bound by my own ideas because they are my own, but to welcome truth from any source, and above all, to seek reward, if reward be due, from God and my own conscience. Amen. (Contributed.)

Editorials.

Please all note that the dates definitely fixed for the conference to take place in Hankow are February 16-22. Get there the day before and stay as long as you can. All physicians and nurses are welcome as delegates or guests. It is particularly urgent that every missionary society should see that it is represented by at least one delegate, in order that, as far as possible, the expression of opinion be thoroughly representative. First come yourselves; bring with you a paper to be read. Be prepared to speak and discuss, in order that the meetings may be as lively and interesting as possible. There is absolutely no one among us whose opinion and experience is not worth having on some points. Bring with you anything in the way of an exhibit, either pathological, educational, or
parasitic. If you live near Hankow, please bring your microscope along, as it is hoped to exhibit a variety of interesting microscopic specimens, particularly in the line of malarial parasites. This remark applies especially to those living on the river between Ichang and Shanghai and to those coming in houseboat or by rail from the nearer points.

If you expect to read a paper, please notify Dr. Booth, Hankow, of the Programme Committee, of your expectation, giving the subject in full, and do so immediately on receipt of this January Journal, in order that you may be assigned a place on the programme and time for discussion be arranged for.

As soon as you arrive in Hankow, communicate with Dr. Booth, who is chairman of the Local Arrangements Committee, but don’t fail, if you have not already notified him of your intended presence, to do so.

This is the last horn-blow. We are going to have a good time and a most profitable. You probably need it as much as we do—both the former and the latter. So come!

* * *

We have all read with great interest Mr. Bitton’s paper Standards of Missionary Education in China, published in the Chinese Recorder for October, 1909. There is much in the paper that we are in hearty agreement with, and trust that something may be done in the immediate future to standardise our missionary schools and educational diplomas, and make certain that each diploma or degree given represents in full measure its expressed standard of scholarship. It is fair to American scholarship to make clear a point on which Mr. Bitton himself gives the impression of being not entirely clear.

We understand that in British Universities and Examining Boards the “Licentiate” and the “M.B.” represent what we may in simple terms call fitness to practice medicine, and the “M.D.” stands for post-graduate work and carries with it a certain amount of academic honour. Now from an American standpoint we are quite ready to admit that we wish this were the condition in that land. It is always better to call a thing by the less pretentious name and have it stand for more than its
name implies. But the facts are not so. In America there is no M.B., merely M.D. And the American M.D. is merely another name for the British M.B. It is merely the expression of fitness to practice medicine. It carries no honours whatever. It is the university’s license, without which no State will permit a man to practice. It is never given, as far as we know, as an honorary degree. It is earned in regular course, not for postgraduate or special work. It would have been better had American universities followed the British custom, from which they drew their whole idea of degrees, but they did not do so, and we suppose that ninety millions of people have the right to follow their wishes in the matter. It should be therefore understood that when an American mission college in China gives an M.D. it means no more than if a British institution in Hongkong were to give an M.B. or a license. This fact, if thoroughly appreciated, would perhaps mellow some of the rather strong expressions in Mr. Bitton’s article concerning mistakes and degrees that have been run into by overzealous institutions. It is easy to appreciate that a British university man would stand aghast at the freedom with which the M.D. degree is held by every American practitioner until he understands that the law of every State makes this requirement and that it represents the same degree of proficiency theoretically as the M.B. of the British physician.

We have merely tried to make the matter clear, because mutual understanding brings tolerance and sympathy. We do not defend or condemn the giving of degrees to Chinese by mission institutions. It is altogether a question as to the standard of work required by the institution. We should like to see a central Examining Board, without the certificate of which no mission institution of college rank in China should give a degree or diploma, and we should like to see the standards of such a Board conscientiously held up to the highwater mark.

THE SHAO-HSING FLUKE WORMS.

There has been presented in the Journal during the last three years considerable material concerning the Shao-hsing fluke worms, and it may be that a few words on the part of the editor will tend to clarify the subject somewhat.
Putting the thing in its simplest terms, there are three distinct worms—two of which were presented at the last Conference of the Association by Dr. Goddard, of Shao-hsing, and one of which has appeared more recently. The first two varieties sent in were reported on by the Research Committee, which easily divided them into the well-known Fasciolopsis buskii and another similar worm, which yet differed in some respects, being unlike it (buskii) in size and appearance, but anatomically very similar. On the other hand, it resembled the original description of what had been described under the name Distomum rathouisi in size and appearance, but differed from it radically as to its anatomy. Both varieties coming from the same neighbourhood from whence came the original rathouisi worm lent zest to the enquiry as to whether this new worm might not prove to be that which had faultily been described differently.

It appears that a careful recent study made by Odhner has established the original description of the rathouisi worm as faulty. During the last year Dr. Jefferys received from Dr. Goddard a fine lot of worms, none of which were buskii, many of which were the same as the new variety presented by Dr. Goddard at the conference, "rathouisi," but also many of this new batch presented certain slight differences from either of the others. For confirmation of these differences specimens of all three worms were sent to Dr. Henry B. Ward, one of the leading authorities on helminthology in the world. Dr. Ward, after careful study, distinguished, of course, the buskii worms and admits the two other varieties and suggests names for two unnamed varieties, calling the first one presented by Dr. Goddard "Fasciolopsis rathouisi" and the second "Fasciolopsis goddardi."

The description of the worms will be found in Dr. Ward's article in this issue.

Dr. Goddard is to be congratulated on his contribution to the solution of the old and vexed question, and the thanks of the association are due to Dr. Ward for his hearty interest and careful and fruitful study which has established the facts.
AN OPEN LETTER TO THE JOURNAL AND ITS ANSWER.

THE FORMAN MEMORIAL HOSPITAL,

YEUNG KONG, CHINA, NOVEMBER 18, 1909.

Editor, The China Medical Journal.

Dear Sir: I enclose a copy of The South-China Alliance Tidings, a printed circular letter, quarterly, of the Christian and Missionary Alliance of South China for July, 1909. I quote the following:

"One woman had been entirely healed of cataracts on the eyes in answer to prayer. ... A young man was taken sick with chills and fever, and would become delirious every time the fever would come upon him ... ; finally he asked ... the church people to come and pray for him. ... After prayer ... taking a long sleep, after which he awakened perfectly well and went about his business over in the city the following day." "A young man of twenty-eight years of age, who was taken ill last year with dropsy and had been in bed for months ... . The odor from him was so offensive that we could hardly bear to come near him. His bowels and limbs were burst, which caused the stench ... ; we knelt in prayer. ... That night he slept well all night; next morning he told his mother that he was healed, and arose, shaved his head and went to his work. The swelling began to assuage, although his stomach and bowels were as large as a large-sized water bucket; it was a wonder to all where the water, etc., escaped to" "We went with her and found the mother-in-law gasping for breath; she had been ill for some weeks ... ; we knelt in prayer and laid on hands claiming the promise ... , and the woman was taken with shaking all through her body, and when we arose from our knees she also arose from her bed and said God had healed her, and she went with us to the door. ..." "There have been many other wonderful cases of healing, such as lame limbs, fevers, eye troubles, head troubles, heart disease, and one woman, who screamed all night with agony of pain, keeping the neighbors awake, was instantly healed. Another man was healed of a carbuncle, who had been confined to his bed for months. All these through the power of the name of Jesus." "We find that the large percentage of the children born in our city die at the age of three to seven days. ... They go into lock-jaw. ... Our first case ... We went and found the child stiff, where it had been lying for two days. We took it in and prayed with it, then washed, dressed and fed it. The child was healed. ... As this child was the first in the city to ever recover, it became widely known, and now we are often called to such children. Even yesterday we ministered to two of these babes. Sometimes we make as many as four visits in one day to these little ones. This has not only become known here in the city but in the country around, and all know there is only one remedy for such. So the rich and poor alike ask for the one remedy—'Jesus.'"

Tetanus Neonatorum cured in numbers! Upon reading this letter one cannot but compare the sordid dosing of medicine and painful surgical procedures of our hospitals with these wonderful masterly cures of diseases which the wisest of us often fail to alleviate. To doubt the veracity of their statements is apparently untenable, however, for those who print and send this letter broadcast to our homelands are earnest Christian men and women. What a contrast in methods and expense! Again, when the reports of this mission are compared at
home with those of our hospitals, dissatisfaction with our methods
must be the inevitable result.

Why is it that we of the C. M. M. A. practice with barbarous
instruments and nostrums instead of with prayer? If these few people
have received a power which is far and above anything the regular
physician has, why have we not obtained it and helped and advised
others of our society who still administer medicine and chloroform?

It is with neither criticism pro or con that I write. I was dum-
fozled to read that a portion of the Master's servants have progressed
infinitely beyond most of us. Friends, these things ought not so to
be. Since reading the above mentioned letter I have been dissatisfied
with our time-honored customs as physicians, and want this power
which seems so complete.

Therefore I would earnestly request the leaders of the C. M. M. A.
to rigidly investigate the diagnosis and results in cases of organic dis-
ease arising in the work of the C. and M. Alliance or elsewhere. If,
as some may hold, these people are frauds, let us be informed, and I
for one will be more encouraged to continue practising our science.
If, on the other hand, these cures are true then, I submit, we who rely
on drugs and instruments as the medium are culpably negligent in our
methods with those who appeal to followers of Jesus for treatment of
disease.

Yours truly,
W. H. DOBSON.

REPLY.

DR. W. H. DOBSON, Yeungkong.

DEAR DOCTOR: Your letter raises questions which are by no
means new to the missionary body in China. More than one
physician, affected by arguments similar to those which have been
presented to yourself, has buried his drugs and instruments deep
in the mud and devoted himself to faith healing of one form or
another, for there are many forms. Though, in our experience,
it has only been a matter of time before a reaction has taken place
and the little grave has been opened again.

It is not difficult to understand this course. An enthusiastic
Christian physician secludes himself in an inland city and struggles
single-handed against disease and death. Loneliness and failure
and introspection play their parts in bringing on a condition of
disquiet and unhopefulness. Then something of the nature of
that which you quote comes along, and the man thinks he sees a
great light, and he throws away all that he has and follows after it. But the carefully trained physician, having taken this step, soon finds out that the physical diseases which are curable by faith are those that he always knew were so, and that the incurable ones by faith are incurable by faith alone still. In other words, he finds out that by faith an ulcer on the eye may get well—and again, it may not. But that by faith alone cataract in the eye—not "on the eye"—does not get well, whereas by faith, with the addition of a cataract knife, it does.

We are not stating our views as the views of the world at large. The members of the "Christian and Missionary Alliance" are perfectly welcome to their views, and we are in hearty accord of course when you speak of them as "earnest Christian men and women." But it is perfectly evident to those of us who have studied the conditions of disease that these people are entirely ignorant thereof and are totally incompetent to diagnose and differentiate diseased conditions. Such expressions as "cataract on the eye," "his bowels and limbs were burst," "stomach and bowels as large as a large-sized waterbucket," "eye troubles," "head troubles," "go into lockjaw," and the like, exhibit so complete a misunderstanding of anatomy and pathology and diagnosis that one cannot acknowledge for a moment this their claim to cure diseases named specifically which the claimers so evidently cannot differentiate from each other.

We confess ourselves to have a great deal of sympathy with St. Thomas. St. Thomas had faith, but he had a scientific mind also, and we find ourselves in very much the same position. At the present time of writing we confess frankly and without hesitation that while we believe the writers of the paper quoted from (The South China Alliance Tidings) to be sincere and earnest, we think the evidence is very clear that on the whole subject of medicine, with which the paper deals, the writers are too entirely ignorant to have undertaken such specific diagnoses. If by prayer and faith, by encouragement and good cheer and hopefulness the writers were so happy as to have done something very positive towards bringing health and peace and sanity to certain sick ones—and we acknowledge that much faith in faith healing—they are to be congratulated. But as for believing that they cured cataracts,
malaria, and tetanus and dropsy of any form, and tumours and rupture of the bowel, and so on, our faith is not sufficient for that. We do not believe it; it is irrational and not proved, and the evidence is hopelessly inconclusive. If any man differs from us in this view, we would suggest the painful but practical trial of the point on his own part. Let him bury his instruments and drugs, sell his hospital, select himself, or with competent help, a definite number of such cases as those outlined—true cataract, true tumours and the like—and see for himself if his faith is sufficient to cure them. If he is satisfied that he can do so, then his instruments and drugs are barbarous, and he has chosen the better way. But we doubt that God will give such power to men yet awhile, as the evidence of the centuries seems to point to other means and gifts on His part—means and gifts earned by toil and the sweat of our brows, earned by the labour and devotion of thousands of men's lives; gifts though imperfect, yet infinitely dignified because so won through toil and sacrifice.

I am, fraternally yours,

THE EDITOR.

A SAMPLE OF WHAT THE EDITOR GETS.

MY DEAR EDITOR:

I understand that you never want articles for the JOURNAL, and therefore I don't send you one which is all ready for mailing. If you should ever require such a thing by any chance, send us a registered letter and tell us all about it. Meanwhile I will put it away, where the moths corrupt and the matter gets stale.

Fraternally yours,

MEMBER OF THE C. M. M. A.
Actions Taken by Physicians of the North China M. E. Conference.

DEAR DR. STUART:

I thought you might be interested in a copy of three resolutions or motions that were passed by the "Physicians of the North China Conference of the M. E. Church at their second annual meeting held in Peking on October 1st. I remember we had the pleasure of your presence with us at our first annual meeting a year ago.

Dr. Geo. Lowry presided this year. I was elected secretary, to take the place of Dr. Merrill. Dr. J. L. Keeler was elected president for next year.

Yours sincerely,

J. J. MULLOWNEY.

MOTION I.—Inasmuch as we, the physicians of the North China Conference of the Methodist Episcopal Church, see and realize the serious nature of some of the contagious cases that we treat at our dispensaries and hospitals, and knowing that some of these same cases come to the communion table and mingle with other people, and realizing the great danger of transmitting certain diseases through the secretions of the mouth, we do earnestly urge that our church obtain and use "individual cups" at the communion table. To this end we urge the medical men in each mission to bring this matter up at the next mission meeting for decision by the majority of the mission.

MOTION II.—That the new medical men be given at least two years for language study without adding any other responsibility; and, if at all possible, a third year also and that the third year course of language study be somewhat revised to fit the requirements of medical men, inserting more technical language into the course.

MOTION III.—That the Missionary Society be urged to pay the expenses of a post-graduate course for medical missionaries home on furlough.

Manila Medical Society.

PROCEEDINGS OF SEPTEMBER MEETING.

Dr. E. H. Ruediger.—Vaccine Virus.

In connection with his paper Dr. Ruediger presented several photographs showing the typical vaccination reaction on patients and one of a cow suffering from vaccinia. Dr. Ruediger traced the important work of Jenner in connection with variola and vaccinia.

With reference to the method of preparing vaccine virus Dr. Ruediger said in part:

Vaccine virus is usually prepared on cattle. The abdomen of the animal is shaved, cleansed with sterile water, and long parallel scratches are made and the vaccine inserted. Five days after vaccination the vesicles usually have reached maturity and are scraped off with a sharp curette.

There are several methods of preserving the virus: first, drying it; second, mixing with lanolin; third, mixing with glycerine. In my experience the dried virus has not given satisfactory results so far. Incorporated in lanolin it retains its virulence well, but extraneous organisms multiply rapidly in it. Glycerine being a mild antiseptic inhibits the growth of extraneous organisms without seriously interfering with the virulence of the vaccine virus. Vaccine virus, incorporated in 50 to 75 per cent. solution of glycerine, retains its virulence for months.

Vaccine virus is a prophylactic against variola or small-pox. The area of skin where the vaccine is to be applied is cleansed with some antiseptic, as alcohol, followed with sterile water. Several small scratches are made and the vaccine...
inserted. On about the fifth day an umbilicated vesicle appears, which in appearance is characteristic of vaccinia. The vesicle slowly enlarges; about the eighth day a red halo appears around it and the patient becomes feversh. The symptoms increase up to the tenth or twelfth day, after which the temperature subsides and the vesicle dries. In course of a month the scab usually falls off and the lesion heals, leaving a characteristic scar.

Immunity to small-pox after vaccination is supposed to be of several years' duration. Persons exposed to the infection of small-pox should be vaccinated every year or two.

Dr. E. R. Whitmore.—Bacillary Dysentery in the Philippines.

Dr. Whitmore gave an interesting paper on his subject, and the secretary is sorry that he is able to give only a brief abstract of what Dr. Whitmore said. He called attention to the fact that in June of this year bacillary dysentery was more common than usual, and among the badly affected places were Batangas and Bauan, in Batangas province. Dr. Whitmore went to investigate the dysentery there.

In 1899 and 1900 dysentery prevailed extensively in the Philippines, especially among the United States soldiers, and it was mainly on cases in the army that Flexner, Strong, and Musgrave did their work and drew special attention to the fact that acute bacillary dysentery was different from amœbic dysentery, was very prevalent in the islands, and was a very fatal disease.

Since that time we have heard a great deal about amœbic dysentery, and many of us seem to have lapsed into a feeling that if a case of dysentery was not amœbic it was not very serious, and I desire again to call attention to the fact that bacillary dysentery is a common disease here and that it is a fatal one.

Dr. Whitmore obtained stools from the cases in Batangas, Bauan, and other places, and from all these places he was able to isolate an organism that corresponded in every way with the bacillus dysenteriae of Shiga and which was agglutinated by the blood serum of the patient. He examined all stools for amœba and found them present in only one case.

As to diagnosis Dr. Whitmore thought that the ordinary examination of the stool was of assistance only in a negative way, as finding amœba usually satisfies and we look no further.

Examination of the stool for bacillus dysenteriae is possible only for one with some laboratory training and facilities. The bacillus is rarely found except in the bloody mucus stool and is very rarely isolated from a stool that is over 48 hours old so that bacteriological examination of the stool is not yet suitable as a routine means of diagnosis.

As a method of treatment, by all those who have given it a fair trial, serum therapy is considered important. The mortality was reduced markedly from 24% to 1.3% to 5% the highest.

With reference to the serum reaction there is great diversity of opinion. Dr. Whitmore does not consider that it is to be relied upon for diagnostic purposes, that it does not appear till the second week, and sometimes never.

PROCEEDINGS OF OCTOBER MEETING.

Presentation of Cases.

Dr. Parrish reported a case of precipitate delivery. Child, placenta and unbroken sack were delivered at one contraction of the uterus. No shock, hemorrhage, or prostration followed. The patient was a young woman, second delivery. Dr. Parrish wished to know if such was a common occurrence among the Filipino women? In the discussion Dr. Calderon stated that such cases occasionally occurred, especially among the women of the mountain tribes.
Dr. Calderon.—An Interesting Case of Pregnancy.

The case is that of a woman, aged 27, widow, nullipara, who came to see Dr. Calderon one day, stating that her menses had ceased for the past three months and that during this time she had noticed the development of a tumor in her abdomen which caused her some difficulty. Examination of the patient showed, in the abdomen, the presence of "a round tumor, which was movable, soft, slightly resistant, not fluctuating and somewhat painful when touched, and which extended from the symphysis pubis to the umbilicus."

Dr. Calderon's first impression was that he had a case of pregnancy, but he failed to find any of the positive signs in spite of the characteristic form of the patient's abdomen, which looked like that of a woman at the fifth month of pregnancy.

Dr. Calderon states:—

I informed her that I thought she was pregnant; she answered by assuring me that this could not be, as she had lost her husband more than a year ago and since then has not had intercourse with any man. It was absolutely impossible that she would miraculously become pregnant.

Doubting the truthfulness of her statements I attempted to make a vaginal examination. I was surprised to find the orifice of the vagina at the vulva closed by a fibro-mucous membrane which would not allow the insertion of a speculum or even of a finger. More careful inspection revealed, in this vulvar diaphragm, a small orifice the size of a small pin head, through which I was able to introduce a very fine probe into the vaginal canal.

Being much perplexed by what I saw, I asked the patient about the previous condition of her genital organ, and she answered me that she had had, up to three months ago, regular menstruation without any difficulty; that she had fulfilled the duties of a wife during the three years of her married life to the satisfaction of her husband, and that two years ago she had an abortion of a five months' fetus without medical assistance or that of a midwife. This abortion is hard to explain in view of the diminutive orifice through which the fetus had to pass unless the vulva was open that time and the vulvar obstruction or diaphragm now existing is the result of a cicatricial process, due to a puerperal tear caused by that abortion, or unless the fetus passed through an orifice connecting the vagina with the rectum. Examination of the rectum proved negative.

The patient was persuaded to enter the hospital for the purpose of removing the vulvar obstruction and of making a diagnosis. After removal of the obstruction to the vaginal orifice the vaginal walls and uterine cervix were found to be edematous, soft and velvet-like, characteristic signs of a woman in pregnancy.

A piece of the detached membrane was preserved for histologic examination, which proved to be negative for cicatricial tissue.

Three months after the operation the patient again presented herself for examination, and Dr. Calderon found a well-developed fetus in vertex presentation and in an I.O.A. position, whose heart beats could be distinctly heard on the left side of the abdomen. Still the patient denied ever having had direct or indirect sexual intercourse with any man!

Dr. Calderon continues:—

This interesting case of pregnancy suggests to us some observations. In the first place we must suspect the veracity of the facts stated by certain women, especially when by modesty or mistaken honor they are prone to hide their real condition. Then, we must be reserved in similar cases before making a definite diagnosis. And, lastly, we must give due importance to the histological examination of the tissues, inasmuch as it can sometimes furnish the key to certain phenomena such as those I have already discussed. Before knowing the result of the histological examination in this case, I thought probably the obstruction was the development of cicatrici.
cial tissue which had closed the vulvar orifice as the result of puerperal tears, especially in this case where the woman said she had an abortion without medical assistance.

However, the histological examination tells us clearly that it is not a case of cicatricial formation and, therefore, we must consider that the vulvar diaphragm is of a congenital nature; it being highly probable that the carnal copulation took place incompletely. . . .

Hence I think that in this case we have an imperforate elastic hymen which invaginated during coitus rather than a diaphragm, because this elastic membrane was placed just within the vulvar opening and not in the lower portion of the vagina.

Lastly, I am firmly convinced that in the present case there has never been an abortion, and we must, therefore, reject the patient's statement on this point, not only because it would be impossible for a foetus of five months to pass through a vulvar orifice as tiny as the head of a pin, but also because we cannot very well give weight to the words of a woman who, being pregnant, should deny that she ever had sexual intercourse with any man.

Dr. Jose Quirino.—Método de Mombourg en las Hemorragias Puerperales.

AUTHOR'S ABSTRACT.

This method consists in the application of a belt around the abdomen of the patient till the femoral pulse is suspended, and is very useful in controlling postpartum hemorrhage. In a case of my private practice of hemorrhage persisting after the expulsion of the placenta, the uterus failed to contract; as the condition was becoming serious, a cord was wound twice around the waist and drawn tight. It is well known that anemia promotes the contractions of the uterus, and this effect followed in a few minutes after application of constriction and there was no further hemorrhage.

The constricting belt was removed without the least sign of untoward effects. The application of Mombourg's technic is particularly simple and easy after the childbirth, as the intestines are still crowded into the upper part of the abdomen.

In another case of placenta previa of Professor Calderon this method was employed with success.

Dr. McLaughlin.—Some Observations on Cholera.

Dr. McLaughlin's paper was important, as he showed that in cholera epidemics many cases of cholera in children go unrecognized, and in this way aid to spread the infection and possibly to bridge over from one epidemic to another. Cholera, like all intestinal disturbances of children, usually produces marked cerebral symptoms, and many of these cases have been diagnosed as acute meningitis and acute enteritis. The symptoms, as well as the autopsy findings, in children are atypical. Dr. McLaughlin's paper will appear in an early number of the Philippine Journal of Science.

Dr. Singian.—Spinal Anesthesia.

Dr. Singian states the advantages of spinal anaesthesia over the ordinary method of general anaesthesia by ether or chloroform to be: first, it is better for those patients whose vitality is low—"run down" patients; second, patients who would be susceptible to collapse by ether or chloroform; third, in spinal anaesthesia there is no intoxication of the general system; the drug coming in contact with only a small part of the body.

However, spinal anaesthesia has some inconveniences as, first, in certain cases in which the anaesthesia is obtained very slowly; second, the anaesthetized zone is limited and does not correspond to the field of operation; third, in rare cases manifestations of asphyxia, due to paralysis of the higher nerve centres, have been observed. Dr. Singian thinks, however, that these and other difficulties are due not to the method itself but to the imperfection of technique.

One of the most enthusiastic supporters of spinal anaesthesia is
Dr. Jonesco, of Bucarest, who has a brilliant record of cases operated on by this means. He employs a mixture of strychnine and stovaine and injects it, not only in the lumbar region, but also in the higher portions of the spinal canal,—in the cervical and dorsal regions, without any accident.

By means of this method he has been able to successfully perform not only difficult laparotomies, but even trephinings and other hazardous operations in different regions of the body.

Dr. Singian's experience with spinal anaesthesia is based on 90 operations. These include such operations as hysteropexy, suture of fracture, tuberculous arthritis, inguinal hernia, etc. In these cases he was able to make the following observations: No anaesthesia was obtained in two cases; in one case the anaesthesia appeared six hours after the injection; the extension of the area of anaesthesia is variable, but it never has been seen to descend below the superior limit of the perineum. In no case was any alarming symptom noted.

The author of the paper is a firm believer in the future of spinal anaesthesia.

First Biennial Meeting of the Far Eastern Association of Tropical Medicine.

Manila, P. I., March 5-14, 1909.

The Far Eastern Association of Tropical Medicine was established with the idea of bringing together workers in tropical medicine in this portion of the world for an exchange of ideas and to foster the spirit of scientific investigation which has already brought forth such excellent results in certain of the eastern countries. The diseases which we have to combat, and the problems which confront us are, in a large measure, the same, and it is believed that the meetings of the association will enable all of us to take advantage of the advances made by each. On account of the practical importance which hygiene and sanitation have in the present stage of Far Eastern civilization, a whole day of the program has been allotted to these subjects. Owing to the great distances which separate us, it has been decided to hold the meetings every other year instead of annually. The first meeting of the association will be held from March 5 to March 14, 1910, at Manila, P. I. The program is as follows:

**AT MANILA.**

Saturday afternoon, March 5.—Opening session.
Sunday.—No session.
Monday, March 7.—Protozoology, Helminthology.
Tuesday, March 8.—Cholera, Plague and Leprosy.
Wednesday, March 9.—Surgery and Obstetrics, Diseases of Children.
Thursday, March 10.—Fever in the tropics, including Malaria, Typhoid, etc.
Friday, March 11.—Dysenteries; Herbert.
Saturday, March 12.—Tuberculosis.
Saturday night.—En route to Baguio.

**AT BAGUIO.**

Sunday.—No session.
Monday, March 14.—Climate, Hygiene, and Sanitation; Business session.

Return to Manila Monday night.

The daily sessions will begin at 9 a.m. and will continue until 5 p.m. with an intermission from 12 a.m. to 2 p.m. for luncheon. The session on climate, hygiene, and sanitation, and the business session will be held at Baguio in the Benguet Mountains.

Already a number of prominent medical men from other countries have signified their intention to be present and others have promised to send papers, so that the success of the first meeting of the association seems assured. It is requested that the delegates and others bring with them, when convenient, rare pathological specimens, unidentified helminthological specimens, etc., for demonstration and discussion.

**Transportation.**—Manila can be reached very easily by steamship from any of the other countries in the Far East. Owing to the difficulty in furnishing sailing dates so far in advance, it is advisable for intending visitors to consult with their local steamship agents as to sailings and rates.

**Accommodations.**—There are several hotels in Manila at which good accommodations may be obtained at 4 to 6 dollars a day, Philippine currency. Following is a partial list:

- Delmonico Hotel, 278 Calle Palacio, Intramuros.
- Metropole Hotel, Sta. Cruz Bridge.
- Bay View Hotel, Calle San Jose, Ermita.
- Continental Hotel, 45 Plaza Goiti.

Visitors will be met on arrival by members of the reception committee.

**The Meeting Places.**—The sessions in Manila will be held in the new building...
Medical and Surgical Progress.

Skin Diseases.

Under the Charge of A. S. Taylor, M.D.

BOILS.


Boils, he says, are not due to constitutional states, but are due to local infections, usually by the staphylococcus. Proof of this is seen where an epidemic of boils breaks out among the members of a rowing crew in perfect physical condition; the cause being found in an infection on the hand of one member of the crew.

Crops of boils on the same person are due almost always to bad treatment of the first boil. The classic method of poulticing and lancing with a crucial incision as soon as a boil has "pointed," and squeezing out the pus and replacing the poultice, is bad practice, says the author, as it offers an ideal condition for the growth of the organism. Furunculosis is doubtless due to infection from one part to another by the fingers or in some other way in a person who is susceptible to the infection.

Treatment.—All that is necessary is a piece of stick sharpened to a fine point, a little absorbent cotton, 95 per cent. sol. of carbolic acid and 5 to 10 per cent. salicylic acid ointment. A small bit of cotton is wrapped around the stick, dipped in the carbolic, and bored into centre of boil. This gives a chance for pus to escape and disinfects the cavity of the boil. The boils are not to be squeezed. The surface of the skin is to be washed off with peroxide or bichloride, the salicylic acid ointment spread on a piece of clean linen or gauze large enough to cover the boil and the adjacent skin. This is the end of the boil as a rule. If it is a very large boil, repeat the operation the
next day. The ointment is to be kept constantly on the affected part for a week.

If the patient comes before boil has pointed, it may be aborted by injecting into the boil a few drops of a 5 to 10 per cent. solution of carbolic, or by touching the top with the 95 per cent. acid, while the ointment of salicylic is used as a dressing. Poulticing relieves the pain by lessening the tension of the skin. Hot boric acid compresses may be used with equally good results. The carbolic relieves the pain, as the acid is anesthetic in action.

The Hyperemic Treatment of Boils.—The following treatment is recommended by Willy Meyer and Schmieden in their book on Bier’s Hyperemic Treatment:

The suction cups must be large enough to cover entirely the parts reached by the inflammation, and the edges of the glass should rest on healthy skin. The suction should be of a mild degree. The treatment is given once a day for three-fourths of an hour, that is to say, the suction cup is applied six times during the period mentioned, with regular intermissions of two to three minutes.

Suction will usually prevent suppuration in the early stages of the trouble. In the event of the formation of a “core,” the suction may be employed to advantage in hastening the process and materially reducing the pain. The suction serves to aspirate the pus and central slough from the depths of the infected focus. Incisions are necessary in exceptional cases only, and then they need not be very large. A loose ointment dressing is applied after suction treatment, which is to be continued until all infiltration has subsided.

Hyperemic Treatment in Dermatology.—The same authors have the following to say regarding this treatment in diseases of the skin:

Obstructive hyperemia by means of the bandage, as well as the suction glasses, has been recommended for acute eczema, acne, sycoisis, vulgaris et parasitaria; active hyperemia for disease like psoriasis and mycotic, diseases of the nail. Chronic eczema has reacted favorably to both arterial and venous hyperemia. There seems to be no better treatment for keloids than obstructive hyperemia. The suction glasses have brought improvement in alopecia areata. Suction hyperemia has been useful in lupus.

Scarlet Red Upon Epithelialization of Granulating Surfaces.

John Staige Davis, M.D., in the Johns Hopkins Hospital Bulletin, Vol. XX, No. 219, reports observations made during the treatment of sixty cases.

Scarlet red is an anilin dye manufactured by the Badische Co. of Ludwigshafen, Germany. It is sold in one pound cans, and is inexpensive. In the experiments, 2, 4, 5, 8, 10, 20 per cent. scarlet red ointments were used. Scarlet red possesses no antiseptic properties, and the following U. S. P. ointments were made up in vaselin and contained 8 per cent. scarlet red: Boric zinc, iodoform, mercury (blue), and an ointment containing balsam peru, 1 dr. to vaselin 1 oz. Plain vaselin ointments were also used. The ointments are prepared by rubbing with a small amount of oil and then mixing thoroughly with the base. Sterilization caused a darkening in color, but did not seem to effect stimulating power of the preparation.

Technic.—Clean healthy granulations should be bathed with boric solution and dried. Should the granulations be unhealthy, peroxide is used before the boric solution. Bichloride or other strong antiseptics should not be used before the scarlet red. Free use of
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nitrate of silver is advisable to keep down the granulations. The skin surrounding the defect should be anointed with some bland ointment to within 1 cm. of the edge. This prevents irritation. The ointment may be applied over the whole surface of the defect, or simply to growing epithelial edges. Apply ointment to strips of gauze or clean old linen and lay around wound over the growing edges. The portion of the wound not covered by the scarlet red may be dressed as seems best, or may be simply exposed to the air under a cage. The dressing should be removed after from 24 to 48 hours and replaced by a mild dressing of zinc or boric acid. After the same interval the scarlet red should be reapplied.

Cases Treated.—There were sixty cases of ulcers with durations from a few days to fifteen years. The results were summarized in the following sentence: "The stability, thickness, and normal appearance of the healing under scarlet red is noteworthy, and even if the healing in some cases is no more rapid than that under the ordinary methods of treatment, those advantages would seem to make it worth while."

Dr. H. B. Taylor, of Anking, reports success with a scarlet red bought from Carlowitz & Co., and called by them "Scarlet dye, bluest color" and is made by the "Actien Gesellschaft für Anilin Fabrikation." This does not tally exactly in name with that described in the above article.

Gynecological Notes.

Under the charge of KATE C. WOODHULL, M.D.

A Method of Treating Fracture of the Femur in the Newly-born. By Mr. Robert Jones, of the Southern Hospital, Liverpool.

I have treated over twenty cases of fracture of the femora which have occurred during delivery, and in many cases some weeks later, where mal-union had resulted from one or other cause. In some of the cases which had not ended well the treatment had been conducted by very excellent surgeons, with appliances which they admitted were not suitable.

The difficulty in these cases seems to be the application and subsequent retention of a splint in a proper position and the extreme difficulty of managing the infant in the meantime. Mr. Jones, after discussing briefly the different form of splint used for this purpose, concludes that a Thomas knee splint, with extension, is the simplest method. I have not heard of such cases being treated without a splint, but have had two such cases in which the following method was employed: The thigh was flexed on the abdomen with the knee extended, the foot coming naturally to the opposite side of the body. The triangular interval between the front of the leg and the abdomen and thorax was firmly packed with lint folded into a suitable shape. A narrow binder was then passed round the child's body and round the back of the leg extending from a little above the knee to the ankle, and leaving the seat of fracture and the foot uncovered. This was re-adjusted occasionally when required, and at the end of three weeks removed altogether; perfect union had occurred, and the child very shortly afterwards began to move the limb in the same way as the sound one. During the treatment
it could be easily seen, by comparing the fractured limb with the sound limb placed in the same position, that the fractured limb must be in good position. The first case I treated in this manner occurred five years ago; the second, two years and a half ago, was treated in conjunction with Dr. Cooke, of Aspull. I related my first experience to him, and he agreed with me that it was a much better plan than using any form whatever of splint. Both these children I still see occasionally, and it would be impossible in either case to detect that anything had been the matter. In fact the result in both cases was perfect.—J. Edmondson, M.B., C.M., Burscough.

British Medical Journal, July 25th, 1908.

Complete Retroversion of the Uterus in the Fifth Month. By Charles J. Cooke, M.D.

Mrs. W., aged 26, was admitted to the Plymouth Infirmary in the fifth month of her second pregnancy. She was in a state of collapse; the extremities quite cold. The temperature 97, the pulse 160; the abdomen was extended by a tumor that looked like a full term pregnancy; the perineum was excessively distended by a large rounded mass and the anus widely dilated. An oedematous mass (which proved to be the posterior vaginal wall) filled the vagina and extended from it. A catheter was passed with some difficulty and four and one-half pints of normal urine withdrawn. This caused diminution of the abdominal tumor, which now assumed a somewhat triangular form with the apex near the symphysis. Strychnine, brandy, and hot-water bottles somewhat revived the patient, and, as soon as it seemed safe, ether was administered and an examination made.

I found it just possible to insert the finger between the symphysis and tumor; the os uteri could not be reached. On examination by the rectum it was evident that the mass that was bulging the perineum (exactly as a large fetal head does) was the fundus uteri, which was wedged below a well-marked sacral promontory.

By careful manipulation it was possible to push the uterus up into the abdomen, when the os could be easily reached, and was found to be dilating.

The patient now gradually rallied, and all went well until five o'clock the next morning, when she aborted. There was but little hemorrhage, and the fetus and placenta were expelled in a normal way. Unfortunately she again became collapsed, and, in spite of everything that could be done, she died, apparently of shock. Her friends stated that she had been for a fortnight at least in the condition above described, and had frequently complained of difficulty in walking.—British Medical Journal, May 15th, 1909.

The centenary of the first ovariotomy, which was performed by Ephriam McDowell in 1809, was celebrated at the thirty-fourth annual meeting of the American Gynecological Society, held in New York, April 20, 21, and 22. A banquet in honor of the occasion was held at the Waldorf-Astoria Hotel on April 22 by the New York and Brooklyn Fellows of the Society.

INTRACTABLE PRURITUS.


Lewis refers to the martyrdom caused by this disease and the varied measures that have been in-
troduced to relieve it. He reports the case of a married woman of 35, in whom pruritus followed accidental abortion seven years ago. It grew more intense and with shorter intervals between paroxysms. She had been curetted four times, had used innumerable ointments, etc., dieted and taken medicated baths, and had had X-ray, galvanic and faradic treatment, and had been cauterized with silver nitrate and nitric acid. The labia were swollen, edematous, excoriated and cicatrized. The mere touch of the vulva provoked the itching. After three weeks of unavailing medical treatment, an operation was performed for removal of part of the mons veneris, the labia majora and minora, the clitoris and vestibule. He describes the operation. The patient recovered without any untoward symptoms and is now a happy woman.—The Journal of the American Medical Association.

A CURIOUS OBSTETRIC DIARY.

A diary of the three deliveries of Queen Charlotte, wife of George III, has been edited by Dr. Nigel Stark and published under the title An Obstetric Diary of William Hunter. One thing that strikes us is the difference between the physician of 1762 and his successor of to-day. William Hunter, as most medical men know, was a man of much wider knowledge and greater refinement than his illustrious brother John who, concentrating all his mind on anatomy and surgery, remodelled the methods of surgery for all time. William Hunter was a scholar, an anatomist, a numismatist, and a courtly gentleman. He was called in by Mr. Hawkins to advise as to Queen Charlotte, but he does not seem to have done much more than to listen to Mr. Hawkins and feel her Majesty’s pulse. Mr. Hawkins, like many of his contemporaries, seems to have thought that the sovereign remedy was bleeding, and Dr. William Hunter’s chief service to Queen Charlotte during her pregnancy was to protect her from unnecessary depletion. He was not present at the delivery. This was supervised by the mid-wife, Mrs. Draper, not a person of very good judgment, for a little after six she told Dr. Hunter that “it would be slow,” and at half after six, “when I little expected it from what Mrs. Draper had told us, the prince was born.” Hunter waited in an ante-room. He examined the placenta and the “cloaths.” He visited the Queen during the lying-in, felt the royal pulse, and prescribed some harmless carminatives. Almost the only thing that Hunter did that he could do better than Mr. Draper was the examination of the placenta. It is curious to speculate what he would have done if his examination had led him to conclude that a piece of placenta or chorion was retained in utero. Would the royal personages who did not allow him to supervise the birth of the infant have permitted him to explore the royal uterus and bring away retained placenta or chorion? We very much doubt it, and doubt if Hunter would have proposed it. His examination of the placenta interested him as an anatomist, but from a clinical point of view it was about as useful as the carminative draughts he prescribed. If a bit of retained placenta had led to hemorrhage or septic poisoning, and thus to loss of life, it would at that time have been said to have been a visitation of providence.”—The British Medical Journal, January 30th, 1909.
This summer in Kuling the first steps were taken in the formation of the Nurses’ Association of China, and the society was duly organized. Two preliminary meetings were held, at which the general plan and purpose and scope of the society were discussed and a committee was appointed to draft a constitution which should be submitted to the nurses at a later meeting.

This proposed constitution was presented to a meeting on August thirty-first, and after ad seriatim discussion, and when suggested alterations had been inserted, it was accepted as a whole. The society has for its purpose the elevation of the calling and position of the trained nurse in China through the education and training and development of the young women of China who are ready to look upon this work as their opportunity to serve their country and to help their own people with skill and intelligent service.

The society will endeavour to further the publication of nursing literature, and has as one of its ambitions a nursing journal in Chinese. Immediately on the adoption of the constitution the following officers were elected:—

**President**: Mrs. Hart, Methodist Mission, Wuhu.

**Vice-President**: Miss Denham, private nurse, 2 Rue de Tananarive, Hankow.

**Editorial Secretary**: Mrs. Sylvester Lee, English Wesleyan Mission, Wusueh (Kuling), (unable to act).

**Secretary**: Miss M. T. Henderson, A. C. M., Wush, Kiangsu.

**Treasurer**: Miss Hawley, Kuling Hospital, Kuling.

**Registration Committee**: Miss Mary Ogden, A. C. M., Anking, Anhwei. Miss Miller, Margaret Williamson Hospital, Shanghai. Miss Booth, English Wesleyan Mission, Hankow. Miss McIntyre, Southern Baptist Mission, Chengchow, Honan. Mrs. T'sen, St. Hilda's School, Wuchang.

It is not desired that the Association should be a locally managed organization. A beginning had to be made. We wait eagerly a more general membership which will bring a more general official list.

**CONSTITUTION OF THE NURSES’ ASSOCIATION OF CHINA.**

**Article I. Name.**

This organization shall be known as the Nurses’ Association of China.

**Article II. Purposes.**

Section 1. To promote fellowship among its members, to advance the interests of the nurses’ calling, for mutual help and comfort in times of illness, discouragement, or misfortune.

Sec. 2. To raise the standard of hospital training in China by the adoption of a uniform course of study and examination for the Chinese.

**Article III. Membership.**

Section 1. a. Fully qualified nurses of good standing.

b. Associate members; such partially trained nurses as are now (December 31st, 1909) in charge of hospitals and training schools for nurses in this country.

Sec. 2. Chinese Membership.—Qualified nurses holding the certificate of training schools registered under the Executive Committee.

Sec. 3. Applications for membership to be made to the secretary, and by her to be presented to the Executive Committee.

Sec. 4. The Executive Committee shall decide as to the eligibility of applicants for membership.

**Article IV. Officers (Central Association).**

Section 1. The officers shall be: the president, vice-president, general secretary, editorial secretary, and treasurer.
Sec. 2. There shall be a Registration Committee of not less than seven members, three of whom shall be Chinese.

Sec. 3. The officers of the Association, together with the Registration Committee, shall form the Executive Committee.

Sec. 4. The officers of the Association and the Registration Committee shall be elected yearly by ballot, and shall serve one year, or until successors are elected.

Sec. 5. The secretary may appoint an assistant secretary as needed.

ARTICLE V. LOCAL ORGANIZATIONS.

Section 1. Local branches should be formed wherever possible. They are advised to constitute themselves along the lines of the central organization. They should arrange for regular meetings.

Sec. 2. The president of the local branch shall be the secretary to correspond with the central organization. Any papers or matters of local interest should be sent by her to the general secretary.

Sec. 3. In all cases requiring investigation with a view to discipline the president of the local branch should communicate with the general secretary.

Sec. 4. Local committees are urged to encourage members to write papers and to report cases of special interest for the benefit of the Association at large.

Sec. 5. Nurses in training may attend meetings as visitors, but will have no vote and will be charged no fees.

ARTICLE VI. DUTIES OF OFFICERS.

Section 1. The president shall preside at all meetings of the Association.

Sec. 2. The vice-president shall preside in the absence of the president with full power of the president.

Sec. 3. The general secretary shall keep the minutes of the meetings and a record of membership, conduct all correspondence not relating to editorial work, send notices of meetings, and perform the duties usually pertaining to that office, with such other duties as may be designated by the Executive Committee.

Sec. 4. The editorial secretary shall receive and collect items of interest and articles on various subjects, and arrange them for publication in the magazines.

Sec. 5. The treasurer shall receive and collect, hold and pay out all moneys of the Association subject to the approval of the Executive Committee. She shall keep a correct account in detail of all money received and expended by her and carefully preserve vouchers of the same, and shall render her report in writing at the annual meeting.

Sec. 6. The president shall appoint two auditors from the Executive Committee at the annual meeting. The auditors shall audit all bills and accounts of the treasurer, and report in writing at the annual meeting whether they be correct.

ARTICLE VII. DUTIES OF COMMITTEE ON REGISTRATION.

Section 1. It shall be the duty of the Committee on Registration to investigate into the intellectual training, moral standard and hospital discipline of all hospital institutions under missionary, government or private control, which may desire to register under the Executive Committee.

Sec. 2. Charges against members shall be made in writing and duly signed and sent to the secretary only. The secretary shall lay the matter before the Registration Committee. After due investigation the Registration Committee shall report to the Executive Committee. If the Executive Committee shall decide that a member has been guilty of conduct unbecoming a nurse, she shall be dropped from the list of members.

ARTICLE VIII. STANDARD.

It shall be recommended to all hospitals to adopt a uniform course of study and examination which shall have been endorsed by the Medical Missionary Society in the locality in which the hospital is situated.

ARTICLE IX. MEETINGS.

Section 1. The annual meeting shall be held at such time and place as shall be designated by the president.

Sec. 2. Series of meetings shall be called and arranged for from time to time as shall be deemed advisable; such meetings to be arranged for by the president or by three members of the Executive Committee.

ARTICLE X. FEES.

Section 1. Foreign Members.—The annual assessment shall be one dollar ($1.00), payable at the time of the annual meeting.

Sec. 2. Chinese Members.—The annual assessment shall be thirty cents (30
Nursing Department.

83 cents), payable at the time of the annual meeting of the local organization.

Sec. 3. No membership ticket shall be issued until the first assessment is paid. There shall be no initiation fee.

Sec. 4. Any member who fails to pay her annual assessment for two years (annual meetings) shall be considered suspended until payment has been made.

Sec. 5. All money from assessments shall constitute the general expense fund.

ARTICLE XI.

Section 1. Any member knowing of the death of a member, or of a member needing help or comfort, shall make it known to the secretary of her branch.

Sec. 2. It shall be the duty of members promptly to report change of residence and to attend all meetings of the Association when possible.

ARTICLE XII.

The Association may make such rules as are necessary to carry into effect the provisions of this constitution, and also to regulate the proceeding of its officers and committees, providing the same do not conflict with the instrument.

ARTICLE XIII.

Notice of any change in the constitution must be given one year in advance, and may be made by a two-thirds vote of all the members present.

FOOT-NOTE.—Article VIII, as it stands, was adopted by the nurses under a misapprehension of conditions. At a later meeting the following amendment was agreed upon as a substitute, to be voted upon at the next annual meeting:

ARTICLE VIII.

It shall be recommended to all hospitals to adopt a course of study and examinations which shall have been endorsed by the Medical Missionary Association of China and Korea.
WANT DEPARTMENT.

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

SNAKES.—Dr. A. Stanley, Health Officer, Shanghai, wants snakes of China, 70% spirits. Will pay transportation.

PARAGONIUMS WESTERMANNI.—Dr. H. B. Ward, University of Ill., U. S. A., desires specimens of this lung fluke.

OPium Information.—Dr. E. H. Hume, Chansha, Hunan, wants his circular answered promptly.

WORMS.—Dr. W. H. Jefferys, Shanghai, any metazoal parasites of animals and man, especially Schistosomum Japonicum and Paragoniums Westermani.

OLD JOURNAL.—The College of Physicians, Philadelphia, lacks one issue, Vol. XIII, 1899, No. 4, to complete its files of the CHINA MEDICAL JOURNAL. It is out of print. Will any one give it?

The Library of the Shanghai Branch of the Royal Asiatic Society lacks the following issues to complete its file. Will any one give them? MEDICAL JOURNAL Nos.: Vol. I, 1 and 2; II, 1; III, 1; IV, 2; V, 1; VIII, 3; XIII, 4; XV, 2; XVI, 1 and 4; XVII, 1 to 6; XIX, 1 and 6; XX, 1, 2, 3, 5, and 6. Send to the Editor, or to F. W. Ayscough, Hon. Librarian, N. C. Branch, R. A. S.

TO THE MISSIONARY DOCTORS OF CHINA.

January 3rd, 1910.

DEAR SIRS: I received this letter, as follows:—

DEAR MR. EVANS: I have received, in error, from home 3 kegs, each 1 cwt., of Epsom salts. I will be glad if you can dispose of it for me to some of your missionary doctors as it is of no use to me. I will let it go very cheap.

Yours faithfully,

Any reasonable offer will be submitted; there will be no charge for commission.

EDWARD EVANS.