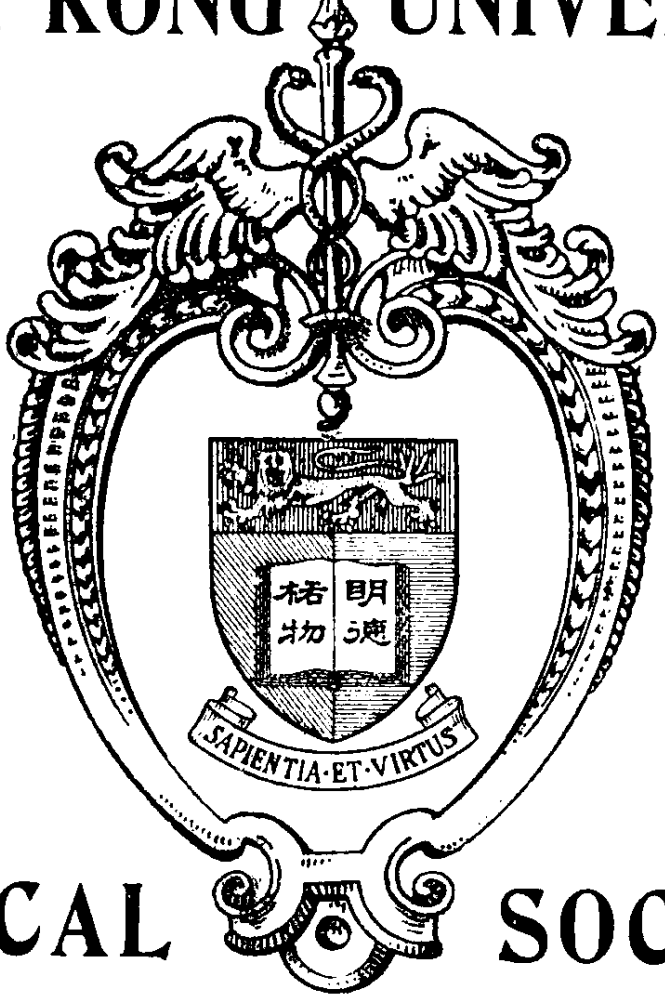
THE CADUCEUS

JOURNAL OF THE HONG KONG UNIVERSITY MEDICAL SOCIETY



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MANSON, THE FATHER OF TROPICAL MEDICINE WITH PARTICULAR REFERENCE TO HIS ACTIVITIES IN CONNECTION WITH OUR MEDICAL SCHOOL.*

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This evening I make no apologies for the title of my paper. We are on the eve of the 21st birthday of this University, and Manson was really the founder of our School of Medicine without which, I venture to suggest, there would have been no University of Hong Kong.

Manson was born in Scotland in 1844. Neither at School nor University did he win any prizes. He was evidently above the common run however, because we find him, when quite young, deeply interested in a tapeworm he found while investigating the internal parts of a dead cat. Soon after gradually he left England and came to Formosa where he was Medical Officer to the Chinese Imperial Customs Service then under Sir Robert Hart who recruited most of his medical officers from Scotland. On his way out to the Far East Manson visited Madagascar, and there first came in contact with indigenous tropical disease. In Hospital there he saw cases suffering from cardiac disease one day and was astonished to see these same cases up and about the next day,—they were, we now know, cases of Beri Beri.

Manson left Formosa after a stay of five years and then moved to Amoy, in 1871, where he remained for several years. He worked in a Mission Hospital there, and in these early days of his career one finds evidence of his initiative and great ambition to extend facilities for medical education. Manson was honest and outspoken, qualities not appreciated by some of the Community in Amoy, and as a result he soon came up against a type of individual who made trouble that threatened to wreck his scheme of medical education.

* Being a Presidential Address to the Hong Kong University Medical Society, 1933.

In face of all difficulties in Amoy Manson's pupils did succeed and settle down in different parts of the country, in spite of the grievances of Manson's enemies: as Manson had intended, his pupils spread what had been taught them.

We know that Manson's benign sympathy in his work must have resulted in very great spiritual influence. He possessed in the fullest degree one of the great qualities necessary for the successful doctor, namely, a love of humanity.

I would ask you to picture the young scientist struggling onwards in Amoy,—cut off from all incentives that incline the ordinary man to pursue original work. There were no libraries for reference, no museums, no scientific meetings, and no association with eminent colleagues. In these days you can well realise Manson's difficult position, certainly discouraging to any ordinary mortal. He had none of the enormous facilities of present times. He was isolated and thrown upon his own resources. Can you doubt that he possessed a high degree of mental cabilre to have overcome all obstacles so thoroughly?

In and around Amoy his fame soon spread. In face of great difficulties he performed the successful operation for removal of a stone from the urinary bladder, and his fame became more widespread as his successful operations for relieving the condition of elephantiasis bore witness to his skill.

Manson states that his Chinese patients were very grateful, but he relates the story of one who had been successfully treated for a large bladder-stone. This patient had about $3,000, and when it was hinted that he might give a small donation to the hospital in recognition of his cure of a very painful condition, the patient took a week to decide. He then told Manson that he had decided to give the vast and generous sum of $1.

In those days as even now in many parts, it was extremely difficult to carry on Western Medicine. Mistrust of Surgery was more easily overcome, but Medicine produced no theatrical results for the benefit of the ignorant. Manson's views on this question are best expressed as follows:—" Since most people recover from ordinary sickness without treatment, or even in spite of treatment, whether by Western or Chinese Medicine, the Chinese can point to plenty of cures as attributable to his own native medicines and methods. He therefore sees no reason for giving up the old familiar ways, in which he has faith, for something new and strange. He is prudently conservative in this matter and is worthy of respect on that account." To diverge for a moment, let me remind you that although veneration of the dead prevented such things as dissection and post-mortem examinations, the Chinese knew a great deal about medicine. A striking in-

stance of this was brought to light some years ago by a doctor in Australia. A Chinese patient was proved to be suffering from Pernicious Anæmia, and was dying. The patient told the doctor he wanted other advice and returned to China. Two years later the doctor was astounded to have a visit from his former patient. The patient looked so well that the doctor failed to recognise him. He enquired where the patient had been, and he said he had been under the care of an old Chinese doctor who gave him some black powders to take. The patient brought some along, and on examination the powders were found to be the dried liver of the carrion crow. After a long lapse of years once again the rediscovery of a remedy, and in liver was found a cure for this disease

The result of Manson reading of Lewis' discovery of the *Filaria Sanguinis Hominis* was that he worked night and day until he proved that the Filaria was the cause of elephantiasis. In his research Manson had the help of two Chinese assistants, and he noticed that the one who worked in the hospital wards late at night brought him blood-films which contained the microscopic filaria.

Manson, ever of an enquiring turn of mind, conceived the idea that this might be due to the entry of the filaria into the blood stream at night time only. This line of thought was pursued and it was shown that the filaria did appear in the blood at night time only but disappeared completely during hours of daylight. Manson now argued that some agent must be necessary for the transference of the filaria embryos in the blood from one human being to another. It must be a winged agent—something that fed on human blood, and that at night time only. What other could it be than a mosquito, and as you know such proved to be the case.

Manson introduced a special trocar for dealing with abscess of the liver, and Manson's trocar is still used in some places where no skilled assistance is available.

To show that Manson was ingenious, look at how he endeavoured to culture the minute rod-like bodies he saw in the lymph from leprotic nodules. He filled capillary tubes with the lymph, inserted them into a hen's egg, and used the hen as a natural incubator.

The condition known as Sprue did not escape Manson's attention and study. He attributed this disabling complaint to the insidious effects of the climate and alcohol.

In 1878 Manson began his study of Malaria, and here we have further evidence of his powers as an original observer.

This keenness is illustrated in a remarkable way by the story of the Mandarin who came to consult Manson about a skin rash. The patient kept clearing his throat and began to spit on the floor of

Manson's consulting room. Manson was about to remind him of his bad manners when he says "My disgust and anger vanished on seeing the sputum to be tinged with blood." Manson rushed forwards and seized a specimen of the sputum. He examined it under the microscope and instead of finding the filaria embryo as he expected, he saw the egg of an unknown parasite. We now know it was the egg of the Paragonimus or lung fluke.

In 1883 Manson left Amoy for Hong Kong. For many years Hong Kong had been looked on solely as the centre and distributor of merchandise, but due to Manson's foresight it has now become a distributor of Science. It may be that in the future the Commercial fame of Hong Kong will wane, but it is certain that her importance and fame as a centre for Science will slowly but surely increase.

Here in Hong Kong we have striking evidence that Manson was not a one-sided scientist. He was a hygienist in the widest sense, as is shown by the fact that he took the leading part in the establishment of the present Hong Kong Dairy Farm. In those days he pointed out that the milk supply of a community is second in importance only to its water supply. The aim was not to supply milk as a luxury for the well-to-do, but that fresh milk might become widely used as a food for the poorer classes. It is hoped that all appreciate the great boon of a continuous and safe supply of fresh milk.

Let us pass now to what was Manson's most eminent Public Service in this Colony, namely that in the cause of Medical Education. In Amoy he had striven manfully against opposition in that direction. In Hong Kong he found more scope, and right well did he use his opportunity.

It would scarcely be fair, however, to forget that others before Manson's time had foreseen the great possibilities of developing medical education in Hong Kong.

In 1845 a few medical practitioners formed a China Medical and Chirurgical Society. The first President was one, Dr. Tucker, who at that time expressed the hope that a medical school would soon be formed. Unfortunately his untimely death resulted in a dissolution of the Society.

In June 1844 one, Dr. Hobson, opened a Missionary Hospital and he strongly advocated the cause of medical education. Owing to lack of funds he had to abandon the formation of a proposed medical school. Things remained dormant until Manson threw his energy into the scheme.

His first notable achievement in the Colony then was the founding of a new Medical Society of which he became the first President. He commenced medical teaching at the Alice Memorial Hospital.

Very soon he so inspired the community, both official and unofficial, that from his small preliminary endeavours a very much more far-reaching scheme gradually developed. He was the prime mover in the foundation of the Hong Kong Medical College—the precursor of the present medical school and of the existing University. In those days the Hong Kong Medical College had a Patron the Viceroy, Li Hung Chang, who had the greatest admiration for Manson and his achievements. The great man of China gave his influential support and wrote " There is no doubt that when your admirable project is achieved it will be appreciated and imitated, and that it will, through your students, be a blessing to China."

The first graduation ceremony of the Hong Kong College of Medicine was held on July 1893, and then it was stated that owing to the benevolent attitude of Viceroy, Li Hung Chang " within the sacred precincts of the Emperor's palace European Medicine is welcomed and appreciated in the person of one of the graduates of the College of Medicine in Tientsin."

This first graduation was an outstanding event because one of the two graduates was Dr. Sun Yat Sen, who had passed his examinations with distinction. According to Manson and Dr. James Cantlie (afterwards Sir James Cantlie), Dr. Sun Yat Sen was an excellent surgeon, and he practised for a short time in Macao. Dr. Cantlie used to go there to assist his former pupil in difficult operations. Cantlie writes as follows:—" Why did I journey to Macao to help this man? For the reason that others have fought for and died for him, because I loved him and respected him. He has a nature that draws men's regard, and makes them ready to serve him at the operating table or on the battlefield: an unexplainable influence, a magnetism which prevaileth and finds its expression in attracting men to his side." You may all know how fortunate it was that Sun Yat Sen had gained the admiration of both Manson and Cantlie because their help was instrumental in securing his release when he was kidnapped by his own countrymen in the Chinese Legation in London. Had Manson and Cantlie failed to bring about their friend's release, Sun Yat Sen would most surely have been assassinated.

From 1902 onwards the Hong Kong Medical College obtained an annual Government grant to help it along. In 1907 under the patronage of Sir M. Nathan the name was altered to the Hong Kong College of Medicine to signify that students of nationalities other than Chinese might be admitted. At that time the College had to use makeshifts to make good its somewhat anomalous circumstances. It had to borrow accommodation for special purposes all over the city. To remedy this the Government reserved in 1905 a suitable site on the Tai Ping Shan reclaimed area. In 1907 a Chinese benefactor, Mr. Ng Li Hing, offered $50,000 to erect Medical College buildings

there. Work was about to commence when Mr. Mody, a Parsee gentleman, offered the sum of $180,000 for the erection of a University which should incorporate the Medical College. In 1912 the Medical College was merged with the University. The medical degrees granted by the University are recognised by the General Medical Council of Great Britain. All this wonderful development, and our present status, are the results of Manson's untiring efforts and enthusiasm.

In 1889 Manson retired to his native Scotland, intending to settle down and enjoy the remainder of his days in peace, but within a year, owing to family misfortunes and the depreciation of the Hong Kong dollar at the time (How history repeats itself), Manson was compelled to take up work again. He went to London as a consultant and for many years scarcely made butter for his bread. Manson had not imbibed Dr. Radcliffe's "sure secret to make your fortune: use all mankind ill." His beloved work on tropical blood diseases was continued, and in a small room at the top of his house he worked out the life-history of the guinea worm in the water flea, as well as making many more invaluable observations. Now this small room proved to be the nucleus of the future London School of Tropical Medicine.

In 1894 Manson published his *Malaria Mosquito Theory*. His associations with Ronald Ross who was interesting himself in Malaria in India were fruitful. There was a close scientific collaboration between these two great men, and it culminated as all the world now knows in the complete vindication of the theory of "Mosquito Manson," as he was then known. It was worked out to the successful and by the undying enthusiasm, persistence, ingenuity and zeal of Ronald Ross.

Think of the practical but risky demonstration of the mosquito-malaria theory. Manson's pupils in the Roman compagna demonstrated that it was possible to remain untouched by malaria even during the most pestilential season of the year. They lived in a specially screened hut. Then came the bold experiment by Manson of producing Malaria in his own son by the bites of malaria-infected mosquitoes sent in special cages from Rome to England. Malaria was thus reproduced for the first time in one who had never been out of England.

In 1922 Manson died, but just before his death he had the pleasure of knowing that through the generosity of Mr. Rockefeller the old School of Tropical Medicine was to be replaced by a magnificent new building. That stands now as the fine London School of Hygiene and Tropical Medicine, in close proximity to the spot where the spark of Tropical Medicine first took fire over half a century before.

Ladies and gentlemen, I have given you but a sketchy account of the career of the great Manson. I am not claiming that he dis-

covered Tropical Medicine, but we must realise and remember that by his work and precepts he made it a new and living thing.

He was the first to demonstrate the cause and transference of many hitherto obscure tropical diseases, and he pointed the way to a more scientific treatment of these conditions. He was certainly the first to found and direct a school devoted to the teaching of Tropical Medicine.

What benefit has the world at large derived from this? Manson has rendered safe for colonisation and development many unhealthy and inhospitable regions of the British Empire, and many other parts of the Tropics.

How few of us, and how many fewer of people in general, ever pause and think what posterity owes to Manson, whose work entitles him to belong to that distinguished group which includes the names of Pasteur, Koch and Lister. The prosperity and the fortunes of some countries and of many business magnates have been entirely dependent on the self-sacrificing struggles of those pioneer brothers of our profession who carry on and blaze the trail in the face of pestilence and fell disease in desolate areas of the tropics.

There is no doubt that without Manson and his wonderful hypotheses the solving of the mystery of Yellow Fever would have been long delayed, and that no Gorgas would have arisen betimes to guide American energy, wealth and labour to construct the Panama Canal,—a world marvel of enterprise.

Let us look around this University, and what do we see? Certainly nothing as a lasting tribute to Manson, the founder of our present Medical School. How many of the community remember his name or realise what the Colony owes to him? He has been largely forgotten. He was not known as a maker of millions either honestly or dishonestly, nor did he gain fame by self-advertisement. He might very well have done so had he been unscrupulous. There are no monuments to his memory, no streets bear his name, and yet his services to the community as a whole have equalled, if not surpassed, those of anyone in the Colony's history. It is the same old story,—Doctors have always been noble enough to devote their lives for the benefit of humanity for nothing. The outstanding example of "Service before Self."

As students you may be excused if you enquire: Is Medical Research worth while? Certainly for the human race successful investigation is well worth while, but for the individual who attempts it is often less worth while. We have only to look at the scanty recognition bestowed on Manson, and at how Ronald Ross, Manson's colleague in Malaria work, was allowed to end his days almost as a pauper. It is true that the successful research worker always has one

satisfaction,—pleasure in his own achievement. The great misfortune is that this will not supply him and his family with bread and butter, much less with peaches and champagne.

This evening I would ask you, medical students, to always remember that Manson founded and directed the Medical School of Hong Kong—the embryo of what has now become this University. There was a time when it was regarded as an undignified thing for a University to concern itself with the teaching of subjects having a utilitarian value. Happily things have changed, as Universities have been wise in taking note that they are expected to minister to the national life and not to dwell on some lofty height remote from the common lot. We will agree that it has been an advantage to medicine to stand in its due place in the academic world, but there has been some reciprocal benefit, for the association has helped to keep this world in touch with the larger school of life. Make it your endeavour to follow the new spirit Manson introduced into Tropical Medicine. This means to carry out your care of the sick with devotion, to serve the Institution to which you belong with unswerving loyalty, to be a stanch, loyal and helpful friend to one's colleagues, to despise petty jealousies, and above all to serve Science.

In conclusion let me remind you of Manson's words:—"Do not offend your less educated brethren by swagger and supercilious contempt. Bear the knowledge you carry with you humbly, and show yourselves wise and good as well as learned."

GAUZE SWABS IN ABDOMEN.

S. W. Phoon, M.S., M.B.

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To surgeons who have to perform abdominal operations, the fear of the possibility of having lost a swab in the abdominal cavity is an ever present one. Nor is this danger altogether averted in institutions where the staff understand one another's method; whilst the possibility of such an accident occurring when one has to operate in a strange hospital is correspondingly increased.

This accident is not a trivial one as may be gathered from the fact that in one such series (3) a quarter of the untreated cases died, while the rest suffered varying periods of ill-health and disability before recovery occurred either by spontaneous extrusion of the foreign body or by a secondary operation. The earlier such an operation is performed the better are the chances of recovery, but in some cases, the accident is not discovered until the persistence of the discharge from the operation wound, the presence of an apparently unaccountable fever, or the appearance of a tumour after operation suggested such a contingency. While Desnoes and Watson (4) have reported a case in whom a sponge had been left in the abdominal cavity for fourteen years and ultimately caused symptoms resembling an ectopic gestation, by a majority of observers the opinion is held that it is more likely for a forgotten swab to have manifested symptoms long before this. Indeed, Clifford White (8) expressed the view that between a solid instrument and a blood-soaked sponge, the latter is the more baneful in that it is the more likely to cause the early onset of peritonitis.

From the surgeon's point of view no less, the accident cannot be considered as trifling. A surgeon who undertakes to operate on a patient is morally bound to safeguard that patient with all diligence from all possible accidents. As Moynihan has so well put it—"A patient can offer you no higher tribute than to entrust you with his life and his health and by implication with the happiness of all his family. To be worthy of his trust, we must submit to a lifetime—of reverent devotion to every detail in every operation that we perform." And if the moral appeal is less compelling, there is another appeal which is more direct and cannot be ignored and that is public exposure or a law-suit.

The legal aspect of responsibility as it concerns the medical profession is both interesting and instructive. According to English laws (9), the responsibility for negligence of a surgeon or indeed any practitioner of medicine whether registered or not is governed by the ordinary principle that he "impliedly undertakes that he is possessed

of a reasonable amount of knowledge and skill necessary for the performance of any professional task upon which he enters and any such person who for reward or in the performance of a duty either through negligence or ignorance causes injury to the patient is liable in damages for the consequences resulting therefrom."

The duty may be self-imposed and voluntary and undertaken without reward, or on behalf of another, but if negligence can be proved, the medical man is liable.

It would seem, however, from a ruling of J. Heath that "if the patient applies to a man, of a different employment or occupation for his gratuitous assistance, who either does not exert all his skill or administer improper remedies to the best of his ability, such a person is not liable."

As to the question of skill or knowledge—this, in the opinion of one of the judges is indefinable. A surgeon need not use the highest degree of skill as there may be persons of higher education and greater advantages than himself; but "he undertakes to bring a fair, reasonable and competent degree of skill and in an action against him by the patient, the question for the jury is whether the injury complained of must be referred to want of a proper degree of skill in the defendant or not."

Furthermore, a practitioner or a surgeon is not held responsible merely because another practitioner or surgeon of greater skill and superior knowledge might have prescribed a different treatment or operated in a different manner. "Nor is he liable if he can prove that the injuries happened through some variations from the normal in the particular patient."

It is interesting to note that a patient may accuse a surgeon of negligence for having removed a limb or an organ without his consent. In an action of this nature, it is for the jury to decide whether any instructions had been given against the removal of such a part, and if no instructions had been given, the surgeon can plead that the operation was necessary to save the patient's life. When a patient seeks to tie the hands of a surgeon by instructing him against the removal of any limb or organ, it would seem the safer course for the surgeon to protect himself by reassuring the patient that he would not remove anything more than he could help and that he must be given a free hand. In a case tried by J. Hawkins, where the patient had expressedly told the surgeon before operation that if both her ovaries were diseased they were not to be removed and yet they were removed by the surgeon on the plea of necessity to save the patient's life, the jury found for the defendant as directed by the trial judge because it was proved in the evidence that the surgeon had told her he would not remove anything more than he could help and that

she must give him a free hand. By her consent to submit to an operation under such conditions, the defendant could plead that it was evidence that the patient "expressly or tacitly signified her assent thereto," i.e. to the removal of the parts complained of.

On the subject of this paper, the interesting point arises that in the event of gauze or any foreign body being left in the abdomen of a patient, is the surgeon liable?

The nearest paralell to a case of this nature is that where an action was brought against two surgeons at St. Georges' Hospital for the alleged negligence of having severely scalded the patient by placing him in a bath heated to an excessively high temperature and keeping him there for an improper length of time. The defence maintained that "it was the usual practice to leave the baths to nurses," and that in the case before the court, it was due to the negligence of the nurses. Chief Justice Cockburn who tried the case, in directing the jury, pointed out that "the defendants cannot be held liable for the negligence of the nurses unless they were near enough to be aware of it and to prevent it." A verdict was returned for the defendants.

Judging by this case, it would seem therefore, that in the event of an action being brought against a surgeon for the alleged negligence of having left any foreign body in the patient's abdomial cavity, some of the points that will be considered are: whether it is any part of the duty of the surgeon to watch against foreign bodies being inadvertently left in the abdominal cavity, or if it is the duty of a special nurse or an assistant especially allotted to watch, whether it is any part of the duty of the surgeon to supervise nurses and assistants in such matters.

Cases of this nature involve what lawyers would call questions of fact and not of law and their decisions are largely left to the jury. From the cases tried but not reported it seems that juries usually return a verdict in favour of the plaintiffs, often with disastrous results to the unfortunate defendants.

Reputations have been irreparably marred, or irrecoverably lost, and large sums have been paid by way of fines. It was said that for such an accident Hagebeck (2) was mulcted of $50,000, and Lassallette spent two months in prison. No operating surgeon can therefore afford to ignore this important problem of the prevention of the loss of gauze swabs in abdominal surgery.

The frequency of this accident, it is difficult to assess. Surgeons naturally do not voluntarily broadcast any such accident that may have happened in their practice, while such cases as are known are those that have been compelled to come to light by public exposure or by court proceedings. These cases can therefore give no adequate idea of the real number of such accidents. In other instances the accident

is not even suspected until an autopsy is performed and when no autopsy is performed the real cause of death is never known—the diagnoses of exhaustion from chronic suppuration or malignant growth being thought sufficient cause to explain the mortality.

Opinions of writers who have thought much on this subject, however, indicate that the accident is not as infrequent as may be imagined. A survey of the available literature reveals the disquieting fact that the accident occurs in the practice of great surgeons and of surgeons not so great. Neugubauer holds the view that the accident is almost unavoidable. Findley is nearly of the same mind, while Schachner is quoted to have said that "so long as Surgery continues an art, just so long will foreign bodies be unintentionally left in the abdominal cavity" and Crossen (2) to whose excellent paper I am indebted for many of these historical references opined that "practically all writers on the subject state that there is no guaranty against its occurrence even in routine hospital work with all the rules of co-operation and special apparatus designed to prevent it." It seems therefore that in the present state of our practice it is generally conceded that the avoidance of this accident is one of the unsolved problems of abdominal surgery and as such it challenges the ingenuity and thought of all interested in the art or craft of surgery.

To the lay mind it is inconceivable how such an accident can occur, and judges and jury who try these cases are often biased with the thought that it is all due to carelessness, and it is difficult to convince them otherwise. Unless they know how gauze sponges are used in operations they will not realise how these can be lost. Of the many recorded cases of forgotten gauze in abdomen, perhaps that mentioned by Loze (5) is interesting as illustrating how badly a surgeon can be let down by the vagaries of the human intelligence of those who assist him. The case was one of appendicitis and as the surgeon himself did not dress the wound, he instructed the nurse daily to put in a strip of gauze, which injunction was faithfully carried out. As the surgeon had forgotten to add that the strips were to be removed at all, the result was that the poor patient had in his anatomy a collection of 34 swabs. The wound healed in due course, but broke down three years later. Incidentally this case illustrates the responsibility of the modern surgeon, and that if continued success is to be attained, unremitting attention to details is a sine qua non.

Now in abdominal surgery the common forms in which gauze is used are as gauze swabs, gauze packs and gauze rolls. As the nomenclature and classification of these dressings are not uniform, it has been suggested (1) that a sponge be defined as a dressing for sponging or wiping; an abdominal pack as a dressing for walling off; and pads as dressings to absorb drainage after operation.

Gauze swabs or sponges then, are useful for sponging as when one is working in the depths of a wound. Again they are useful in gentle sponging for the separation of adhesions or for wiping a small area of escaping bowel contents as for example when the jujenum is opened in the course of a gastro-enterostomy operation. These small swabs measure about 3 inches square and 2 or 3 layers thick, but the American College of Surgeons, in a recent bulletin, (1) recommends that for the purpose of economy and standardisation of dressings, a medium sponge should measure 3½ by 3 inches. These swabs being unconnected are readily discarded when soiled, but being small and unconnected there is always the danger of their being lost in the abdominal cavity.

Gauze packs are thicker and larger and they are sometimes referred to as large flat swabs. They are about 6 inches square and several layers thick, but a recent publication (1) suggests that a medium sized pack should measure 8 inches square and 8 ply thick. In order to prevent gauze pack from fraying or coming off in threads, their edges are turned in and quilted. These large swabs are commonly used to pack away the intestines when one is working in a small area —e.g., in the removal of an appendix. When large areas of raw surface or coils of bowels are exposed, large swabs wrung out of hot saline are used in covering them and thus eliminating a possible cause of shock. A further use for these large swabs is when one wishes to dry rapidly free fluid in the abdomen. For example, in opening the abdomen of a case of ovarian cyst or ruptured gastric ulcer, I find the fluids are much more speedily removed by this method than by suction tubes.

The surgeon takes two or three such large flat swabs or packs and allows them to be soaked with the fluid to be removed. He then passes them on to his assistant or nurse and receives in return two or three dry swabs with which he removes some more fluid in the same way. Meanwhile, his assistant or nurse wrings out the soiled swabs in hot saline, which serves the double purpose of removing the abdominal fluid and cleansing the swabs. These hot swabs, now cleansed and dry, are then passed back to the surgeon, who hands the soiled mops in exchange. The process is then repeated as many times as may be necessary. Each time that the basin of hot saline becomes fouled it is renewed. In this way, with five or six large swabs one can remove free fluids in the abdomen in a rapid and efficient manner.

Gauze rolls may be large or small, but those in common use are about 3 inches wide and about 5 feet long. They may be used in packing away the intestines, in the abdomen, and in fact they can be used for the purposes for which other forms of gauze are used, but for reasons which will be detailed later, they are not so satisfactory

and have many drawbacks when thus used. They are preferred by some surgeons when doing abdominal operations, because by reason of their lengths, they give some sense of security against their too easy loss in the depth of the abdominal cavity.

The objections to the use of gauze rolls only are many. In the first place gauze rolls are clumsy to use when one wishes to do fine sponging or to dry an area deep in the abdominal cavity. Besides gauze being made in one roll, any part of it which is soiled cannot be readily removed from the area of operation, and if one end of it is used to pack away the bowels, the middle part of the roll cannot be used to sponge the stump of an appendix or to mop some fluid escaping from a perforated duodenal ulcer. Then again, if by chance, the middle part of the roll becomes contamminated, it must either be cut, (in which case the virtue of a long roll is lost)—or else the roll cannot be removed without upsetting the existing arrangements of forceps, towels and clips, etc. Furthermore, gauze rolls have the inconvenient habit of rolling off the table and if one end has to be clipped, it must be unclipped each time more of the roll is required. And if more than one roll is used at the same time, they are so easy to get tied up in a knot.

It will thus be seen that each form of gauze has its own use, and if a surgeon limits himself to one form only, he labours under an unnecessary disadvantage which must to a certain extent at least hamper his movements and delay the operation.

The precautions taken against the loss of swabs in the abdomen vary with the practice of different surgeons, but in general they may be said to be modifications and elaborations of the following methods. The gauze dressings, whether in the form of flat swabs, packs or rolls are counted before being given out during an operation, and are recounted after an operation.

In the case of the small swabs, they are usually made up of packets each containing 10 or 12 swabs before being sterilised. The number of packets issued during an operation is noted and at the end of the operation the total number is counted. As an added precaution in some hospitals, a nurse in the operating theatre is detailed to watch the operation throughout to see that no swabs are inadvertently left in the abdominal cavity, but it is questionable whether she can have an uninterrupted view to be really of use for this purpose. Some surgeons would delegate this duty to the chief assistant, but as in most cases the latter's attention is just as much concentrated on the operation itself as is the surgeon's, it is doubtful if this transference of duty is any improvement. In any case, if an accident does occur, the surgeon as principal cannot escape the consequences.

This method has many objections. In the first place the counting depends on so many individuals any one of whom may have

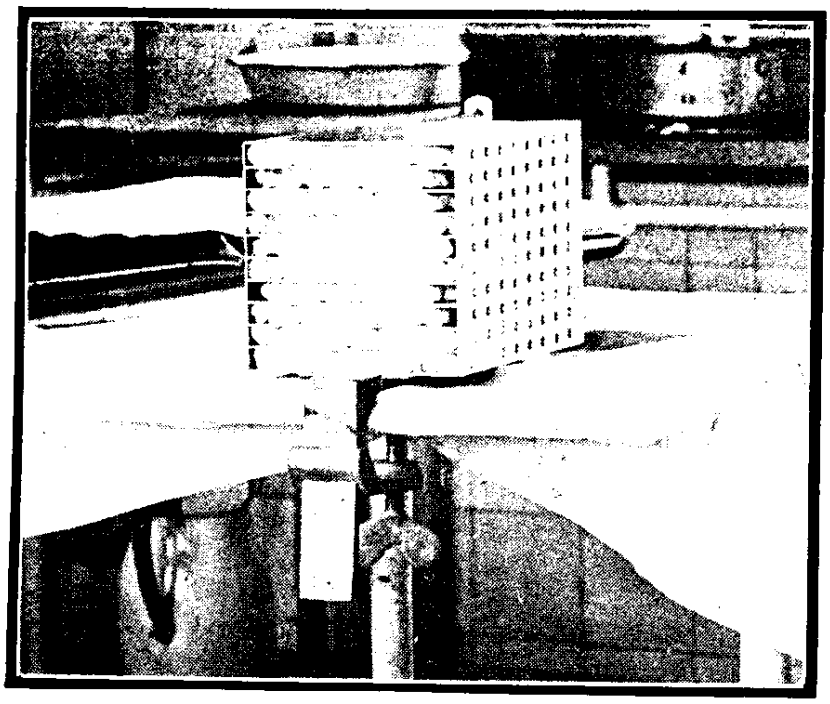

Plate I.

Showing a portable type of swab rack—with perforated side, and gauze lying on the shelves. The rack is clamped to table.

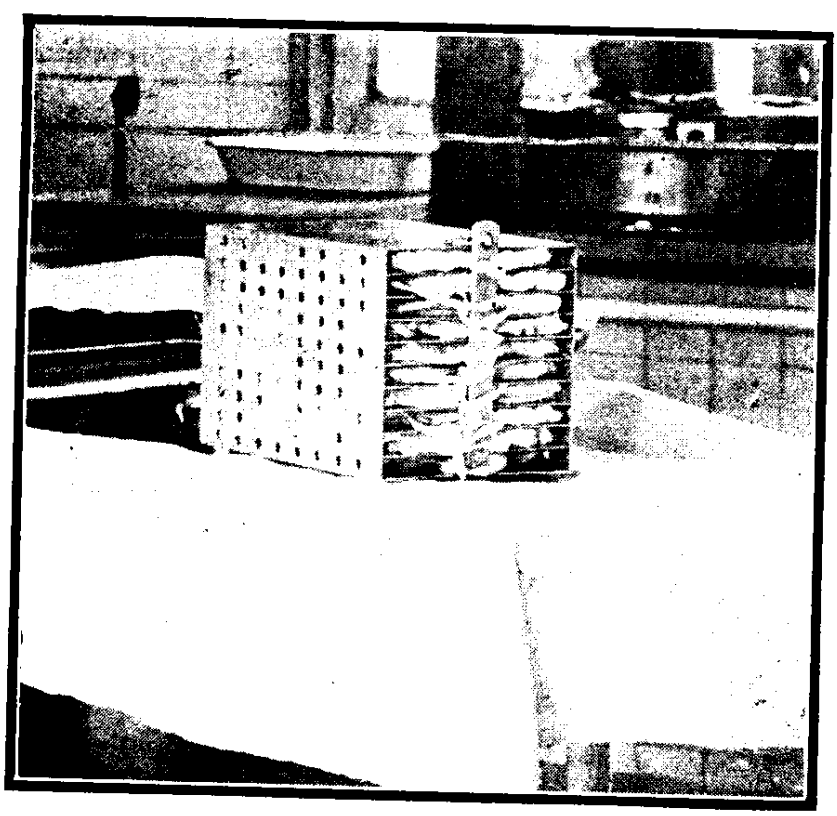

Plate II.

Showing far side of rack—with its vertical piece to which are attached the tapes anchoring the gauze dressings.

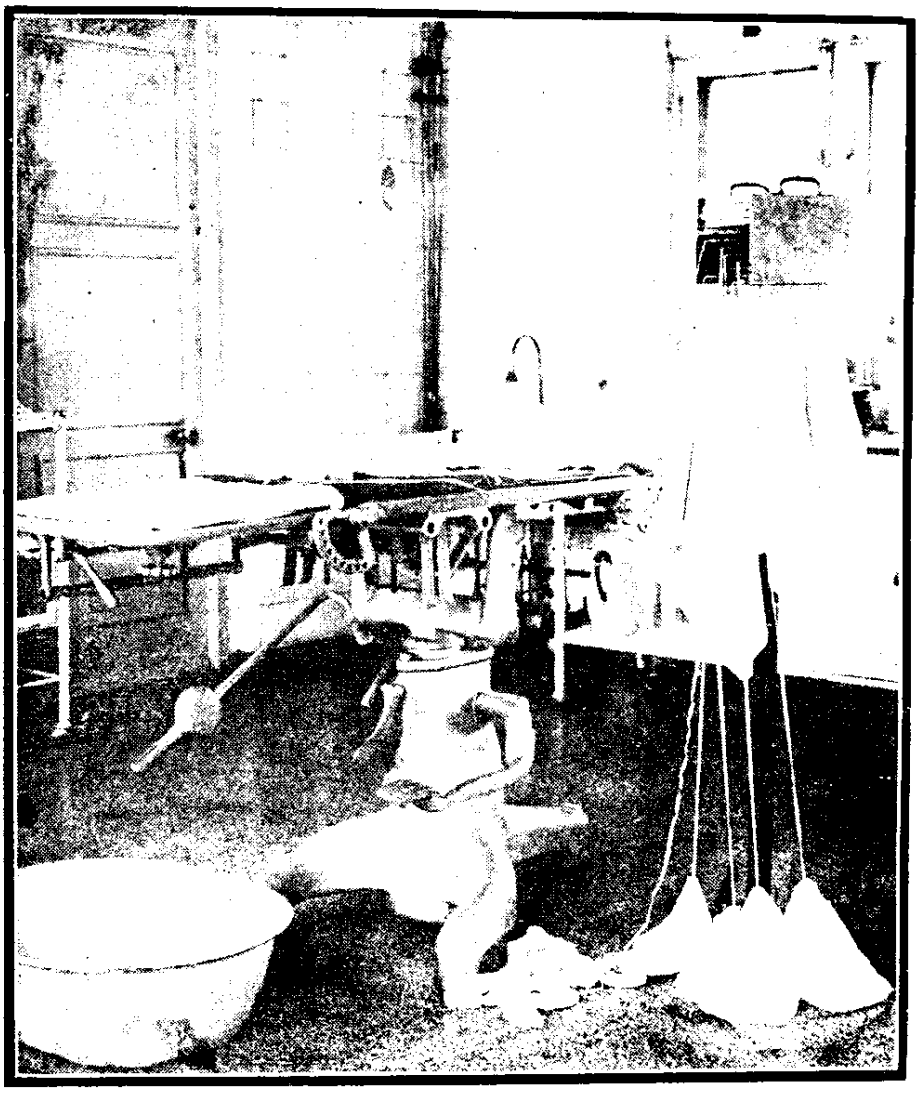

Plate III.

Showing non-portable type of rack with used swabs on the ground and the un-used swabs on shelves—after an operation.

counted wrong. Thus the probationer who made up the packets before sterilisation might have counted one more or less in a packet. Again when it is issued during an operation by the nurse in the theatre, a similar mistake may be perpetrated, or that one swab may have dropped out of a packet. Then again it does not necessarily mean that when a counting is made towards the end of an operation and a swab is found missing that it has been left behind in the abdomen. It is not a rare occurrence to find after much excitement on the part of the staff and anxiety to the surgeon, that the swab, rendered sticky with blood and discharges, has adhered to the bottom of a bucket, or has stuck under the heel of a visitor who has walked off with it. Any one who has seen this method in use, will realise how unsatisfactory it is especially when an operation is done at night or in a strange place.

Other surgeons again, make it a practice that as soon as the abdomen is opened, no small swabs are used—only gauze rolls and large swabs. These being larger are not likely to escape the notice of the surgeon.

In the case of gauze rolls, while they have their uses, they also have certain limitations which have been mentioned before. In the case of the flat packs or large flat swabs, a length of tape is stitched to one corner of every pack and the tape itself is anchored on to the towels by clips. It has been suggested that the tapes should be coloured, so that against a white or green (7) background of towels and sheets they may show readily. Others seeking to improve on this, suggest that the tapes should have metal discs attached to them so that if ever they are lost their position in the abdominal cavity is readily deetermined by a radiogram. But it is cold comfort merely to know that a swab has been lost in the abdominal cavity and it seems the better part of prudence to prevent loss than to facilitate its recovery after loss. Another suggestion made is to have the discs numbered in series so that after operation they may be arranged in order of their numbers and thus checked. But there is the possibility that the pads may not have been issued in their order and then there will be much ado about nothing. A recent writer, Mackenzie (6) suggested a stand—something after the style of a hat-stand with numbered hooks and pegs on which are suspended the used pads after operation. Each pad with its numbered disc is put on the hook or peg bearing the corresponding number, and a missing swab is thus readily detected. But here again is the objection that the pads may not have been issued in their proper order. Besides such a stand, even though mounted on castors, cannot obviously be conveniently carried about from hospital to hospital, and it certainly takes up space in the operating theatre and increases the armamentarium of the surgeon.

Moynihan's (7) method is to use large flat swabs with a piece of tape 18 inches long stitched to one corner. When in use the free end

of the tape is clipped to the towels—thus anchoring the swabs as it were and preventing their loss. As an added precaution when using a small swab, he never permits it to leave his fingers even for a moment. But as Crossen has pointed out the tape may be pulled off and "in one recorded case, the sponge and tape and forceps were all lost in the cavity."

Crossen's method (3) is to use long strips of gauze each 10 yards long by 3 inches wide and 6 layers thick. Each strip is packed in gauze bags 5½ inches wide by 10 inches deep, and one end is stitched to the bottom of the bag. When in use the bag itself is clipped on to the abdominal sheet, while the gauze strips are pulled out by their free ends. These strips are really gauze rolls and the arguments against the use of gauze rolls alone are equally valid, here. Crossen's method is quite simple and does give a certain amount of security against loss, but if one may be permitted to remark on a great surgeon's practice, to use gauze strips or rolls alone is to labour under an unnecessary disadvantage. To have the bags containing the gauze strips clipped on to the sides of the abdominal sheets is scarcely ideal, because in operating on cases with much abdominal fluids as for example an ovarian cyst, the bags in their positions are readily soaked by the fluids. Besides with every strip or roll made 10 yards long, there must be some unavoidable waste, for one's surgical instinct makes one hesitate to use for another operation a partly used gauze roll, even though it may have been washed and re-sterilised.

It seems to me therefore that a successful method should embody the following principles. In the first place it must be safe against inadvertent loss of swabs, which after all is the main object of any such methods. It must not hamper the movements of the surgeon and must not depend on too many human factors for its successful accomplishment. It must be economical to use and simple to work with.

With these principles in mind I have invented a device which is being used very satisfactorily in Prof. Digby's Clinic. I call it a Swab-rack.

It is made of duraluminium and therefore very light—a portable one weighing only 4 lbs. when empty and 4½ lbs. when full. As may be seen from plate 1, it consists of a little box, measuring 5¼ inches broad by 5¼ inches deep and 8 inches long. The sides of the box are perforated which besides permitting ready access and penetration of steam in the process of sterilisation makes the box lighter. In it are shelves also made of duraluminium—the height of the shelves depending on the form of gauze it is intended to hold. The box has an arrangement made at the bottom by which it can be clamped to the stand or table as may be desired.

The second plate shows the far side of the rack and a vertical flat piece which has a hinge attaching it to the bottom of the rack and free at the top. At this part of the vertical piece is an eyelet which by locking with a catch at the upper part of the box becomes fixed. To this piece are attached the various tapes anchoring the various gauze swabs, gauze packs and gauze rolls. If neatness is desired the vertical piece may have two or more vertical columns of holes through which the tapes may be threaded and tied.

The large flat swabs or packs may be made of any size but in general 6 inches square is a convenient size to use. To one corner of it is stitched a generous length of tape about 5 feet long whereby the swab can be drawn right out of the rack.

The gauze rolls may be similarly placed, but it is suggested that instead of having them rolled they should be folded in such a way that one end is attached and the other end lies free. In this way the gauze does not take up much room and is readily accessible for use. The rack as shown in the accompanying plates accommodates only gauze rolls and gauze packs, but it is suggested that if desired it can be made to accommodate small swabs as well. This addition is not shown in these photographs.

The small gauze swabs measuring only 3 inches square or there abouts are best stored in bundles of a dozen to each bundle. Each bundle should be made to stand on its edge, and therefore it will measure about 3 inches high—the height of the shelves will need to be a little more than that. Each shelf being 5 inches broad, will therefore accommodate about two packets of small swabs. The manner of the make-up of these swabs is important. Each swab has a hole in its centre, the margins of the holes being stitched so as to prevent the edges from fraying and through the hole passes a length of cord or tape—one end of which is firmly attached to the vertical piece of metal at the back of the rack while the other end is bulbous and free. The reason for the bulbous end is to prevent the small swabs from sliding out of the tape altogether. There should be a generous length of cord or tape such that from the rack to the neighbourhood of the area of operation the cord can be made to lie quite slalck and free. When in use the cord is first drawn out and clipped to the abdominal sheets well away from the area of operation. Each small swab can then be made to slide out like clothes along a clothes line. The advantage of this is that, if for example, a small swab is needed to wipe away escaping gastric contents from a perforated pyloric ulcer deep down which is obscuring one's vision, one of these swabs can be slided out for the purpose and when soiled it can be made to slide still further on along the cord well away from the operation area. In this way the region around the wound is not contamminated. This func-

tion of the small swabs is frequently needed and cannot be satisfactorily performed by gauze rolls and packs.

The objection has been made that the cord along which the small swabs slide may itself become contaminated by soiled swabs, but this difficulty is not insuperable. The cord can be protected by some water-proof materials, e.g. jaconet sheeting, or it may even be made of strips of water-proof materials, when a wipe or two of the cord with some antiseptic will make it practically clean; or else when the messy part of the operation is over, the cord can be covered over with fresh clean towels and the area around the wound is clean once more. To avoid confusion I must repeat that the accompanying plates do not show these arrangements for small swabs.

The rack can be made of any size as desired, but the measurements we have chosen are convenient for putting it into a little sterilising drum both for the purpose of sterilisation and for carrying about. A larger one carrying more dressings can be made to fit the ordinary drums. This is the non-portable type of rack. The whole rack is thus surgically clean and may be placed on sterilised towels on the operating table or on a side-stand. We prefer to place it on side-stand so as to avoid accidental contammination of the rack or its contents, and as each swab is first picked out with clean forceps, whatever swabs there may by chance remain unused in the rack are surgically clean, inasmuch as they have never been handled and can therefore be re-sterilised and used again. There is thus no unnecessary waste.

Plate III shows one of these racks after an operation with the used and unused swabs. Just before closing the abdomen, it is advisable for the surgeon to glance at the shelves with their emerging tapes or streamers to reassure himself that nothing has been left behind, and while the last stitch is being put in, his assistant or nurse can draw out and arrange each tape in such a manner as to show at a glance its attachment to each swab as in plate III. In this way there is no fear that a swab may have been pulled off its tape unnoticed for this will at once become evident by the unattached tape or by the empty shelf. When the operation is over one glance at the rack will give him that peace of mind and assurance that can hardly be obtained by any other means. The amount of gauze used in each case of course varies with the habit of the surgeon and the nature of the case, but Prof. Digby informs me that he has performed gall-bladder operations with the contents of one such rack.

The rack therefore has many points to recommend it and it is worthy of a trial. It is light and easy to carry about; it ensures safety against loss of swabs; it is convenient to use, and easy to make and to prepare; it can supply the surgeon with every form of gauze he may require, and it is practically fool-proof, not depending on any particular

human factor for its success. It does not materially increase the armamentarium of the surgeon.

It is the firm belief of the writer that a surgeon who uses such a rack has one worry less—(worry whether he has left a swab behind)—and his patient will have one factor of safety more.

I wish here to acknowledge my great indebtedness to Prof. Digby for his valuable criticisms and kind encouragement in the trial of this rack.

REFERENCES.

1. Bulletin of American College of Surgeons—Vol. XIV, No. 2 June, 1930.
2 Crossen—American Journal of Obstetrics—Vol. XLIX, 1909.
3. Crossen—Operative Gynæcology—London; 1925.
4. Desnoes and Watson—Journal of American Medical Association—Vol. LXXVI, No. 24, 1921.
5. Loze—Rev. de Chir. Vol. XXXVII, 853, 1908.
6. Mackenzie—British Medical Journal—February 9, 1929.
7. Moynihan—Abdominal Operations—Vol. I, 1926; London.
8. White—British Medical Journal—Vol. I, 228, 1923.
9. Halsbury—The Laws of England—Vol. XX.

THE PROBLEM OF THREADS FOR THE INTERSTITIAL OR THE INTRATUMORAL USE OF RADIUM.

Recorded for the Hong Kong University Surgical Clinic.

by

Dr. F. Y. Khoo.

One of the bugbears in radium is the choice of a suitable thread for the radium needle. Various materials have been tried—linen, cotton, and silk threads, silkworm gut, catgut, and even silver and other wires—but none of them has been found to be absolutely reliable, as the body tissues and juices appear to produce gradual deterioration of the threads. They then sometimes snap on the application of gentle traction. This is a great disadvantage, because needles inserted near to or into body cavities may therefore easily become detached and perhaps get lost, thus not only endangering the patient's life, but also the reputation of the clinic concerned. In order to minimise this danger, one has either to invent an ideal decomposition-proof thread or to strengthen the threads by some process. Adopting the latter procedure, Professor K. H. Digby suggested the waxing of threads before use, based on the theoretical grounds that they might resist moisture and therefore decomposition better. To this end we have performed a series of experiments, the result of which, although proving contrary to theoretical expectations, we are giving below.

Our method lay firstly in choosing some suitable threads. For this we found Barbour's 3 cord No. 18 Linen thread and Bauer and Black's Coarse Dermal Suture suitable. The threads were then thoroughly dried and half the number were then waxed, soft beeswax being used, the other half being used as controls. In the earlier experiments beeswax was merely rubbed into the threads, but, later, melted beeswax was employed and the threads were soaked for one hour in order to ensure thorough impregnation of the threads with wax. The threads were then divided into various groups, some were soaked in water, others in human gastric juice, and the rest in an alkaline medium prepared from Fairchild's Peptonising Powder, 24 hours soaking being allowed in every case. The threads were then tested for their breaking strength with a tensile testing apparatus made by Messrs. Avery Ltd. This machine also measures the amount of stretching, a thread undergoes before breaking.

THREAD USED—Bauer & Black's Coarse Dermal Suture.

State	*Dry*	*Water*	*Peptonised Medium*	*Gastric Juice*
Batch *No. 1* Plain		11½ lbs.—6⅛"	9¾ lbs.—4⅝"	14½ lbs.—6⅞"
Waxed by rubbing		12⅛ lbs.—4⅞"	9⅞ lbs.—4½"	13¾ lbs.—6⅞"

Batch *No.* 2				
Plain	18⅞ lbs.—5⅛″	—	9½ lbs.—3¾″	16⅜ lbs.—6⅝″
Waxed by soaking	27⅞ lbs.—4″		12¼ lbs.—5⅛″	12½ lbs.—5⅞″

THREAD USED—Barbour's 3 cord No. 18 Linen Thread.

Batch *No.* 1.				
Plain	—	20⅞ lbs.—1⅞″	—	17⅞ lbs.—2¼″
Waxed by rubbing		21⅞ lbs.—2½″		15⅜ lbs.—2⅛″
Batch *No.* 2				
Plain	—	—	—	21½ lbs.—3⅜″
Waxed by rubbing				18⅜ lbs.—2⅛″
Batch *No.* 3				
Plain	—	17¾ lbs.—2¼″	17 lbs.—2⅜″	15⅜ lbs.—2¼″
Waxed by rubbing		15⅞ lbs.—2⅛″	15⅜ lbs.—2¼″	16⅛ lbs.—2¼″
Batch *No.* 4				
Plain	—	—	—	19⅝ lbs.—2½″
Waxed by rubbing				17⅛ lbs.—2¼″
Batch *No.* 5				
Plain	19⅜ lbs.—2⅛″	—	17⅛ lbs.—2⅜″	16⅜ lbs.—2½″
Waxed by soaking in melted wax	12⅜ lbs.—1½″		10½ lbs.—2¾″	11⅞ lbs.—2½″

All the above figures each represent the average got from three tests. They show the strain in pounds weight the thread can stand before breaking, and the amount of stretching in inches before snapping.

From the above results, the reader will gather that waxed threads soaked in plain water resist deterioration slightly better than unwaxed ones, but when we come to those soaked in the peptonised medium we find no appreciable advantage as the results vary for both sides, while waxed threads paradoxically but definitely deteriorate faster in the presence of gastric juice, and also decomposition proceeds faster in an acid medium. As the body juices are more allied to the latter two media, our conclusion is that the waxing of threads will be of no benefit in radium work. Failing this source of security, we now adopt the system of using two double threads instead of one for each needle, and we leave the eye of the needle free from knots, as we find that threads break much more easily at a knot. The two pairs of threads should be of different colour and only one pair should be pulled upon in attempting removal. One pair of threads will always then remain as a guide to the position of the needle. If one pair of threads break it

is advisable not to pull on the other pair but to cut down on the needle using the second pair as a guide. Before concluding, we think it will be of interest to record the breaking strength of some of the commonly used sutures.

Plain Catgut.

No. 00	3 lbs.—7″	Johnsons & Johnsons
No. 0	8¾ lbs.—6½″	London Hospital
No. 1	Not obtainable	
No. 2	12¼ lbs.—6¾″	,,
No. 3	8¾ lbs.—5″	Johnsons & Johnsons

Chromic Catgut.

No. 00	2¼ lbs.—5½″	Johnsons & Johnsons
No. 0	4½ lbs.—6″	,,
No. 1	6 lbs.—6″	London Hospital
No. 2	11 lbs.—5½″	Johnsons & Johnsons
No. 3	18 lbs.—6½″	,,
No. 4	11 lbs.—4¾″	,,

Barbour's 3 cord Linen Thread.

No. 8	31 lbs.
No. 35	7½ lbs.

Down Brothers Chinese Twist. (Silk).

No. 2	5½ lbs.
No. 3	5⅜ lbs.
No. 4	9 lbs.
No. 5	23 lbs.
No. 6	50 lbs.

The above figures are obtained from one test only, so they cannot be regarded as absolutely reliable.

Notes and Comments

We print below a list of the new appointments made to fill the posts of House Officers at the Government Civil Hospital from January 1st to June 30th, 1933.

We are also publishing a complete list of the examination results of the Degree Examinations held in December 1932, and in doing so we take this opportunity of offering those successful candidates our heartiest congratulations.

HOUSE OFFICERS.

Clinical Assistant to the Medical Unit ..... Dr. Lee Hah Leung.

Clinical Assistant to the Surgical Unit ..... No applicant.

Clinical Assistant to the Obstetrical & Gynæcological Unit ..... Dr. Lam Shui Kwong.

House Physician ..... Dr. Tan Hee Choo.

House Surgeon ..... Dr. Tsai Ai Le.

House Obstetrician ..... Dr. Cheng Hung Yue.

Out-Patient Officer ..... Dr. Kuo Shao Chou.

EXAMINATION RESULTS.

The following have now completed the FINAL M.B., B.S. EXAMINATION :—

Cheung Kung Leung
Kuo Shao Chou
Lee Hah Leong
Lee Shiu Kee
Li Ching Wa
Lim Nget Siew
Liu Yan Tak
Mak Kai Cham
Ng Tin Fong
Tan Hee Choo
Tan Liang Hwat
Todd, Miss Lois
Wong Wa Kwan
Yip Yuet Fong

The following have passed in MEDICINE in the FINAL EXAMINATION :—

Cheung Kung Leung
Kuo Shao Chou
Kuo Shao Hong
Lee Hah Leong
Lee Shiu Kee
Li Ching Wa
Lim Nget Siew
Liu Yan Tak
Mak Kai Cham
Ng Tin Fong
Tan Hee Choo
Tan Liang Hwat
Todd, Miss Lois
Tseng Wah Kit
Wong Wa Kwan

The following have passed in SURGERY in the FINAL EXAMINATION :—

Cheung Kung Leung
Ip Ching Iu
Kuo Shao Chou
Kuo Shao Hong
Lee Hah Leong
Liu Yan Tak
Mak Kai Cham
Scully G.
Tan Hee Choo
Todd, Miss Lois
Tsan Wei Chean
Tseng Wah Kit
Wong Wa Kwan

The following have passed in OBSTETRICS & GYNÆCOLOGY in the FINAL EXAMINATION :—

Cheung Kung Leung
Ip Ching Iu
Kuo Shao Chou
Lee Hah Leong
Liu Yan Tak
Mak Kai Cham
Tan Hee Choo
Tan Liang Hwat
Todd, Miss Lois
Wong Wa Kwan
Yip Yuet Fong

The following have passed in MEDICAL JURISPRUDENCE & PUBLIC HEALTH :—

Chew Poh Heng
Lai Fook, W.
Lam Kow Cheong
Lau Man Hin
Lee Pitt Siew
Lim Gim Kheang
Pang Iu Ki
Roy D.
Wong Shing Hang
Chan Fook
Ho Suk Yee
Wong Shun Fong

The following have passed in PATHOLOGY & BACTERIOLOGY :—

Chew Poh Heng
Lai Fook, W.
Lam Kow Cheong
Lee Pitt Siew
Lim Gim Kheang
Roy D.

The following have passed in THERAPEUTICS & PHARMACY :—

Chew Poh Heng
Lau Man Hin
Lee Pitt Siew
Lim Gim Kheang
Pang Iu Ki
Wong Shing Hang
Miss Hui Luk Yip
Tsu Tsoong Ji

The following have passed in SENIOR ANATOMY & PHYSIOLOGY including PHARMACOLOGY :—

Alvaros, R. E.
Lee Hua Ngak
Leung Tin Sun
O. I. E. de Souza
Wu Hung Tak
Yeung Tsaw Che

The following have passed in JUNIOR ANATOMY & PHYSIOLOGY :—

Kong Sau Yui
Koo Shu Ngoeh
Kwok Ku Chang
Naidu, Pala Raj
Tjon, L. A.

The following have passed ORGANIC & PHYSICAL CHEMISTRY :—

Kong Sau Yui
Koo Shu Ngoeh
Kwok Ku Chang
Naidu, Pala Raj
Tjon, L. A.
Woo Pak Foo
Yong Pung Fook
Ooi Kee Wan

The following have passed in PHYSICS :—

Ampalavanar, T.
Feng Tze Chiu
Fung Fa Lun
Heng, Willie
Lee Ek Leong
Lee, Raymond
Ng Bow Kee
Ozorio, H. L.
Symons, Robert
Wu Ki Lim
Yeang Cheng Hin

The following have passed in INORGANIC CHEMISTRY :—

Chan Ping Kwok
Feng Tze Chiu
Fok Wing Kwai
Fung Fa Lun
Ho Kim Meng
Kwok Yu Kong
Lee Cheng Ong
Lee Ching Iu
Lee, Raymond
Lymn, Miss K.
Ozorio, H. L.
Symons, Robert
Tan Hai San
Tan Peng Cheow
Tan Swee Chuah
Tsang Kwong Kau
Tang Po Guan
Wong Ching Kuen
Wu Ki Lim
Yeang Cheng Hin

The following have passed in BIOLOGY :—

Fok Wing Kwai
Lee, A. T.
Lee Cheng Ong
Lee, Raymond
Lymn, Miss K.
Ozorio, H. L.
Wong Ching Kuen
Wu Ki Lim
Yeang Cheng Hin

Review of Books

FILTERABLE VIRUS DISEASES IN MAN.

By Joseph Fine, M.D., B.SC., D.P.H. (Glas.), D.T.M. (Liverp.), Edinburgh: E. and S. Livingstone, 1932. (Pp. 144, 6s. net).

The objects of this little book as stated by the author, are to present in compact form the essential facts of virus diseases in man from a pathological, bacteriological and clinical standpoint, to attempt a classification of these diseases and to review certain controversial points in connection with some of them. This it will be apparent is a somewhat ambitious undertaking for a book of one hundred and forty-four pages.

The book as a whole will no doubt be of interest to the general medical reader. It is unfortunate that it is marred by a certain amount of carelessness. For example, on page six the quite erroneous statement appears that " neither immune bodies nor viricidal properties have been demonstrated in the serum of convalescents in any member of the group " referring to what the author calls the " yellow fever group." In the preceeding paragraph however, it is stated that " the serum of convalescents is capable of protecting against an injection of infected blood." Again on page ten it is stated that following recovery from yellow fever, immunity " is invariably accompanied by the development of protective substances in the serum." In the appendix on page one hundred and twenty-five it is however, maintained that no antibodies are found in convalescent yellow fever serum.

Dealing with rabies the author writes on page eighty-two that in man the incubation period is twenty-seven days for a head bite, thirty-two days for an arm bite and fifty-four days for a leg bite." These figures are no doubt useful approximations but stated boldly they give rise to quite a false conception of a disease which is remarkable for the wide variability of its incubation period.

Throughout the book there are numerous references to recent experimental work. These are not without interest, but the treatment of this aspect is unavoidably too sketchy to be of much service to the research worker and is probably apt to confuse the general reader. The space given to FUZYNSKI's claims concerning the etiology of yellow fever and typhus fever for example appears to be unnecessarily large in a small book of this nature. The reviewer feels that the usefulness of the book might have been enhanced had the author contented himself with an account of the more generally accepted views and stressed more the practical and clinical aspects of the virus diseases in man.

L. S. D.

"Aids to Pathology," by Harry Campbell, M.D., F.R.C.P. Sixth edition, p. 252, 4s. 6d. pub. Bailliere, Tindall & Cox, London.

The little book attempts to summarize the principal facts of pathology. The medical student may find it a help in revising his knowledge for examination purposes; but he should distinctly understand that such a book can in no way replace a text-book. What is required of him is not the memorizing of a number of facts, but an understanding of the principles of the subject. The book in question is too cryptic to be likely to bring much comprehension to one who has not already diligently worked through one of the standard text-books.

In a 1932 edition it is surprising to read on page 236 that Trypanosoma Gambiense (which should be spelt with a small g) is "probably" the cause of sleeping sickness in Africa, and on page 247 concerning Trematoda that "as regards the intermediate host nothing is known." The Chinese student will hardly agree with the statement on the same page that "the only member of this group at all common in man is the Bilharzia haematobia"; which incidentally is now known as Schistosoma haematobium!

There appears to be no description of the pathology of enteric fever or of the dysenteries.

L. S. D.

"*AIDS TO DISPENSING*"—by A. O. Bentley, Ph.C. 2nd Ed. Size 4 × 6½, Pp. viii—204, Figs. 10, Price 3s. 6d. pub. Bailliere, Tindall & Cox, London.

While the name of A. O. Bentley has long been recognised as an authority on Pharmacology and Pharmaceutical Chemistry, in producing this small handbook of 200 pages he has again won the merited thanks of the Medical Profession. Students and young graduates especially will find in it a store of concise and definite information that will provide a key to successful dispensing. The author also emphasises and explains many of the pitfalls into which unsufficient experience and inaccuracy can carry the young practitioner.

The student, who acquires theoretically and practically the knowledge contained in these pages, and follows the advice given in detail, will find himself with a sound and accurate understanding of the fundamentals of dispensing.

J. E. D.

Acknowledgments

The New Zealand Medical Journal.
Japanese Journal of Experimental Medicine.
St. Thomas Hospital Gazette.
Oriental Journal of Diseases of Infants.
Post Graduate Medical Journal.
Manchester University Medical School Gazette.
Fukuoka-Ikwadaigaku Zasshi.
Journal of the Chosen Medical Association.
Okayama Igakkai Zasshi.
Facultad de Ciencias Medicas. Universidad de Buenos Aires.
Revista de la Facultad de Medicina. Bogota.
Arquivo de Patologia—Palhava Lisbon.
St. Mary's Hospital Gazette.
St. Bartholomew's Hospital Gazette.
The Hospital.
Mitteilungen Aus der Medizinischen Akademie Zu Kioto.
Tohoku Journal of Experimental Medicine.
Taiwan Iggakkai.
Journal of Bone & Joint Surgery.
Queen's Medical Magazine.
Birmingham Medical Review.