Clinical surgery : being the substance of an address delivered in the University of Glasgow, on the occasion of the inauguration of the Chair of Clinical Surgery.

CLINICAL SURGERY

BEING THE SUBSTANCE OF

AN ADDRESS

DELIVERED IN THE UNIVERSITY OF GLASGOW,

ON THE OCCASION OF THE INAUGURATION OF THE CHAIR OF CLINICAL SURGERY.

BY

GEORGE BUCHANAN,

PROFESSOR OF CLINICAL SURGERY.

FOURTH EDITION.

GLASGOW.

1888.

193 BATH STREET,
GLASGOW.

20 Nov

Dr Murray
Dear Sir

You are now one of our Managers in the Western Infirmary.

I take the liberty to send you for private perusal a copy of my Inaugural address on Clinical Surgery - from it you will see the various plans of clinical teaching

I am
Yours very truly

George Buchanan.

introduce them.

introduce them.

ADDRESS ON CLINICAL SURGERY.

Clinical Surgery, like Clinical Medicine, is one of the most important branches of a student's education and examination, and what is of more consequence, it forms a large part of the proper business of a practitioner's life. It is of the utmost consequence that the time and opportunities afforded for its pursuit should be judiciously utilized and taken advantage of. The study may be conducted in various ways both by teacher and taught, and I believe that a certain degree of variety among the different clinical teachers in one hospital will conduce to the advantage of the student, provided that he remembers that it is the special branch in which he himself must be to some and even to a considerable extent his own teacher.

My experience as a clinical teacher since the year 1860 has convinced me that so far as I and the students who attend me are concerned, the plan which is sketched out on the last page of this address is the most useful in teaching a class, the numbers of which exceed the possibility of dealing with its members solely on the strictly tutorial plan. I shall not pursue the subject, but shall shortly state, for the information of those unacquainted with it, the scope and mode of conducting that branch of the curriculum with which I have been entrusted.*

The simplest idea of clinical surgery is to be derived from the apprenticeship system, in which a surgeon gives to a pupil or apprentice committed to his care, or acting as an assistant, the information which is to be obtained in the exercise of his private practice. The student being present in his consulting room when the patients call, or accompanying him in his visits to their sick rooms, receives from his master a familiar account of the nature of the diseases brought before him and the mode of treatment. He also learns how to prepare the medicines required, to apply bandages, and generally gains a fair knowledge of the art of prescribing. Such is the ideal of the apprenticeship system. In actual

* In the address as delivered on the 4th November, 1874, the reasons for the foundation of the chair were given at length; it is now unnecessary to introduce them.

experience, however, it almost always degenerates into mechanical routine, and as its days are numbered, I need not detain you by recounting its disadvantages. In one point alone it is of value—viz., in accustoming the student to deal with patients individually, and in their private sick rooms. A young surgeon who has been educated solely in hospital, and is in the habit of seeing patients collected in wards and spoken to in public, is apt to feel awkward in the first days of his practice, when he begins to exercise his calling in the quietness and anxiety of the sick room. I have often thought that an extension of our dispensary arrangements might be beneficial both to students and the sick poor—some plan by which senior students would be sent to attend poor people in their own houses, and in difficulty appeal for assistance to the dispensary staff.* So much has this want of home experience been forced upon me, that I am in the habit of taking my dressers in rotation to assist me in my private operations, and to delegate part of the dressing to them; and I can appeal to many of my former students, if that part of their training has not been both acceptable and useful. Private tuition, however, whether by apprenticeship or otherwise, being available for only one or two at a time, in a great school like this, we must deal with the students as a body, and not as individuals.

For this purpose we have recourse to the hospital where cases of all kinds of surgical accident and disease are admitted. The students standing round the bed of the patient, endeavour to put themselves in the place of the surgeon while he investigates the history and causes of the disease, noting each fact as it is stated. They observe the methods adopted for examining into the case, and are taught under the eye of the surgeon to examine it for themselves. After all the necessary information has been elicited, they are led to form a correct opinion—the surgeon either putting questions to them, or giving them a short address, or, what is perhaps more useful, thinking aloud while the examination is going on. The appropriate treatment is then explained or carried out, either by the surgeon himself, or by the dressers appointed to the ward. Day after day the students watch the progress of the case, which is thus impressed upon their minds, and becomes an actual experience.

But it is quite obvious that in a large number of the most interesting cases such a method could not be adopted. To a great many patients it would be most hurtful to hear their diseases discussed and explained in their presence, especially when they are

* This is now being accomplished.

of a dangerous nature, and when a serious operation is necessary as a part of the treatment. In all cases we desire to spare the feelings of the sick—both from motives of humanity and as an element of successful treatment. Accordingly, when there is anything which would be unpleasant or prejudicial to be stated at the bedside, the surgeon repairs with his students to the class room, where he is free to give without reserve his candid opinion from a review of the whole circumstances noted.

But inasmuch as all are not equally fortunate in getting near the bedside—though arrangements will be made for attaining that position in rotation—a different mode is adopted at the lectures on clinical surgery, a plan to make the instruction equally available to all who are present in the theatre; that is, to bring the patients from the wards into the place of lecture. The patient is placed in a chair, or if he is unable to walk remains on the bed which has been brought from the ward. He is then examined just as formerly described, and removed to an adjoining apartment. A commentary is then given on the disease, and frequently at the end, or during this description, he is brought back, to enable the surgeon to point out anything important which may have escaped notice. The patient being removed, the treatment is explained, and any operation necessary may be described in all its details without any reserve. If an urgent operation is required, it is performed at the end of the lecture; if not, it is done in the presence of the students on the next operating day. At a subsequent lecture the students are informed of the result of the operation, and in the interval they have the opportunity of visiting the case in the ward. In this way a clinical lecture is a condensed commentary on a particular example of disease, which is presented before the students. It differs from the systematic lecture by concentrating into a focus all the essential points, and is in fact, as nearly as possible, a guide to the management of a similar case which may happen in the future practice of the hearers. By a series of these isolated lessons the student gathers his general principles, and has his mind stored with vivid examples which he never forgets. It must be obvious, therefore, that clinical instruction is the most vital part of a student's education.

But while it is simple enough to decide on the best method of conveying this information, everything depends on the way in which it is received. On yourselves you must rest for the acquisition of the knowledge offered to you. You will soon experience that to see and to observe are two different things, just as different as to hear and to learn. You must therefore go to

the sick person himself, and become familiar with his pains and wants, and examine his state with your eyes and hands. There is just one caution, which indeed I need hardly give you—remember we must always have respect for the suffering, in whatever position of life. You will conduct yourselves in presence of disease with that consideration and humanity which is characteristic of our profession. Remember also that the inmates are not all paupers, but many of them of a respectable class of society, who repair to the hospital owing to unforeseen accidents, and because they get nursing and comforts which they cannot command at home, where the number of occupants of the house would militate against the treatment or the success of an operation. In the history of our hospitals the working classes give noble annual contributions, and when they are admitted as inmates we receive them, not as objects of charity, but as contributors to the funds. But I am sure I have no call to do more than direct your attention to this matter, as my previous experience of hospital students leads me to place entire dependence on their discretion and kindliness.

Every student should become a dresser, in order to get more immediate charge of a certain number of patients. Each dresser should keep an accurate note of the state of his patient every day, as it is only by comparing the notes of one day with another, that a habit of accurate observation is fostered. Each case should be reported daily in a clinical note-book kept for the purpose. And such reports, made by the student himself, or from the clinical remarks of the surgeon, will be a store of solid practical information, of greater value than all the works on clinical surgery ever published.

Nothing conduces more to a correct judgment with regard to any plan of treatment than this daily observation of clinical students. All great improvements in surgery have been carried out under the eyes of students, who can at once detect any error of opinion and calculation, or corroborate any accurate conclusion on points of practice. The advances in surgery thus become public property as soon as introduced, and alterations in treatment which have no real value are soon put to an open test and find their level.

Gentlemen, we live in an age of rapid advancement in all branches of science and art, and in our own department we are not lagging behind. Time would fail me to enumerate all the valuable improvements in surgery during recent years, but perhaps it might interest you if I briefly refer to some within my own experience.

Two or three weeks after I was enrolled as a student of medicine news came from across the Atlantic that Mr. Morton, a dentist in Boston, had extracted teeth without causing pain, by

making the patient inhale the vapour of sulphuric ether. The information was received in London on the 18th December, 1846, and on the 21st Mr. Liston, at University College Hospital, performed amputation of the thigh and avulsion of the toe nail, the patients being quite unconscious of pain. The same night he wrote a note to one of my friends in Glasgow, who had been a student of his, informing him as to this property of ether. Immediately on the receipt of this intelligence, I tried the experiment on myself, in presence of my father, who was at that time Surgeon to the Royal Infirmary, and other friends, with complete success; although my father put the insensibility to rather a severe test. I was thus the first person in Scotland who was made insensible to pain by the inhalation of ether.

This is an old story now; but to me the memory of it comes back with all the vividness of a first year student. It is unnecessary to take up your time just now with any remarks on Anæsthesia; but there is one point which I think has escaped the notice it deserves. In estimating the number of deaths which have happened under chloroform there are various sources of error, one of which was forced on my attention in a most remarkable way. When we consider the very small number of deaths from chloroform, and the large number of instantaneous or sudden deaths arising from what are called natural causes, the question arises—"Have none of these alleged chloroform deaths been really examples of death which would have happened independently of the administration of chloroform?" Three years ago a patient with a small tumour on the lip was recommended to me by Professor Allen Thomson. The patient and his wife took apartments in the vicinity of my house for my convenience. A day was fixed for the operation; but on the morning I received an urgent call to the country, so that the operation was postponed. The same evening the landlady called on me to tell me that her lodger had gone out for a walk in the forenoon and had not returned. Next morning I received the startling intelligence that my patient had fallen down dead on the street at about midday, the very hour I had appointed for the operation. Had I at the critical moment been administering chloroform, I have no doubt that I myself would have attributed to it the death which happened as I have stated.

When I was house-surgeon in the Royal Infirmary there was admitted to my wards a patient suffering from vesico-vaginal fistula, at that time a most intractable affection. The gentleman under whom I was acting was an ingenious surgeon and clever operator—the late Dr. William Lyon—and he made many

attempts to improve the patient by operative and other means, but without avail. As usual in such cases, the patient was dismissed *in statu quo*, although at the present day an operation would be performed with almost perfect certainty of success. Shortly after that Dr. Marion Sims of New York began to make that affection his study, and by the most painstaking efforts succeeded in contriving one of the most ingenious operations in surgery. But Dr. Sims' example did not produce many imitators, probably from the extreme intricacy of the steps of the proceeding; so that in 1858 no operation of that kind had been done here except one done by Dr. Wallace of Greenock, in nearly the way advised by Dr. Sims. In 1858 Dr. Bozeman, a pupil of Dr. Sims, came over to visit this country, and was introduced to me. He brought the instruments with him, having made some slight modifications on them. He expressed a desire to exhibit the mode of operating, and as I was acting temporarily for the late Mr. George Watt, surgeon to the Infirmary, I got the sanction of the superintendent to delegate the operation to a stranger. A case of this affection having been admitted, Dr. Bozeman, in presence of the whole hospital staff, performed the operation, which resulted in a perfect success; and in the *Glasgow Medical Journal* for August, 1858, I reported the first successful operation, by this method, in the Royal Infirmary. Since that time it has been frequently performed with a large amount of success.

In 1860 I was hurriedly sent for to see a little patient, apparently moribund from suffocation, the result of an attack of croup. Although the case seemed hopeless, I determined to perform tracheotomy, and had the satisfaction of seeing the breath restored. Three weeks after the child was running about the house quite well. Encouraged by this success—well knowing the happy experience of M. Trousseau and others in Paris—I performed the operation in other cases, and when I had reached the number of nine I brought the subject under the notice of the Medico-Chirurgical Society. Most of the surgeons of the present disapproved of the proceeding, and maintained that it was both unnecessary and improper, and discouraged me from continuing it; but I shall not soon forget the encouragement I got from two of the most eminent physicians of the Society, the late Dr. A. D. Anderson, and my colleague, Prof. Gairdner. I have now operated more than fifty times, and saved over one-third of the patients; *

* In 1887 the statistics of my operations of tracheotomy, for croup and diphtheria were—total, 53: died, 32; cured, 21. See also Transactions of International Medical Congress. London, 1881. Diseases of Children.

and when it is remembered that in every case medical treatment had proved of no avail, and death from suffocation was imminent, it must be conceded the results have been most gratifying.

The history of Ovariotomy is one of the most interesting topics of modern surgery. During the first half of this century isolated attempts were made by various surgeons to remove Ovarian cysts, some of them with success; but with such a preponderance of mortality, that many of the most distinguished surgeons maintained that it was utterly indefensible, and could not be "encouraged and continued without danger to the character of the profession." Between 1840 and 1850 several fortunate results were obtained by Dr. Clay of Manchester and others; and in 1858 Sir Spencer Wells began that series of improvements in attention to details of operating and after-treatment, which gave rise to his unprecedented success, and established the operation on a permanent footing. Before I was appointed surgeon to the Infirmary Dr. Lyon had made two attempts, at both of which I was present; but in both instances the result was fatal in a few hours. Being convinced that Mr. Wells' success must depend on some minutiæ with which we were not acquainted, I went to London to see him, having made his acquaintance when we were attached to the same hospital during the Crimean War. I accompanied him to several of his private operations, and carefully observed every step of the proceedings. In April, 1864, I performed the operation on a patient in the Infirmary, and I had the pleasure of placing on record the first successful case of Ovariotomy in Glasgow or the West of Scotland. Since then it has been yearly performed with an amount of success equal to that of any capital operation.

Cancer of the tongue is one of the most distressing of surgical affections. The gnawing pain prevents sleep and exhausts the sufferer, who is in great part deprived of the power of speech and swallowing. When only a small part is affected, it is easy to remove it; but when a large portion is invaded the operation is a serious matter. It is necessary to cut away not only the diseased structure, but also a part of the sound tissue beyond, in order to avoid the risk of a return of the disease. Even after the most perfect operation the disease often recurs, either in the remaining part of the tongue or the adjacent glands; but it is certain to do so unless the cancerous part is completely removed. Owing to the extensive attachments of the tongue, it is very difficult to get access to it so as to make the incisions sufficiently free; and accordingly, in 1864, Mr. Syme proposed and executed a modifi-

cation of previous operations, by dividing the lower jaw at the symphysis, separating the two halves, and removing the whole organ from its attachments to the hyoid bone. This bold proceeding was in the first examples followed by a fatal result; but in a fourth case, by leaving the attachments to the chin undivided, he succeeded in removing the whole tongue with perfect success, the patient being able afterwards both to speak and swallow. It was obvious that the earlier operations were fatal in consequence of the extent of the mutilation, and division of the muscles which steady the hyoid bone. On reflecting on the nature of the disease, it occurred to me that a much less severe mutilation might serve the purpose. Cancer of the tongue most frequently begins at the side, caused by friction against a broken tooth, or the irritation produced by smoking a short pipe. Its progress is frequently to creep backwards, but it rarely crosses to the other side till it has invaded almost the whole of that in which it began. A case of this disease was admitted under my care in the Infirmary in May, 1865, which gave me the opportunity of putting my idea into execution. I followed the first steps of Mr. Syme's proceeding. I then cleft the tongue from the tip to the hyoid bone, and removed the whole of the diseased half by a lateral cut. Examination of the excised half showed that my knife had gone quite beyond the disease. The patient made a good recovery, and is alive and well at the present day (and is so now in 1888) in Lochranza in Arran; she is known to almost every one on the island. I consider that the plan of removing the lateral affected half, instead of the whole organ, which I have now frequently performed, is not only free from danger, but promises most satisfactory results.

The treatment of stone in the bladder is a subject always most interesting to students. When I was a student lithotomy was the only operation performed for its relief; and up till the time I became surgeon of the Infirmary in 1860, the other form of operation, viz., lithotrity, was practically ignored. Lectures on it were given in the systematic courses; but only to mention it as a surgical curiosity, or with the hope that further improvements would secure its ultimate adoption. The operation tables of the Infirmary, from 1796 till 1858, contain records of only seven cases, and of these, four were in female patients; so that, in truth, in Glasgow, and in most parts of Scotland, the subject of lithotrity was a dead letter. The way in which I was induced to adopt it is rather interesting, at least to myself.

In 1861 a gentleman, aged sixty-four, consulted me with

symptoms of stone; and on examination I detected its presence. Being a relative of my own, I declined to operate; and he selected Mr. Syme, who removed two calculi each the size of a nutmeg. Three years after the urinary symptoms reappeared, and again I discovered a stone. But this time my patient declared he would not submit to the cutting operation, and Mr. Syme was consulted about lithotrity. This he declined to perform, and said he would advise the patient to bear the pain of the stone, rather than undergo the risk and uncertainty of the crushing operation. My patient, accordingly, proceeded to London, where I saw Sir Henry Thompson operate on him. I saw several other cases, and was so impressed with the value of the operation that I procured a case of instruments, and came home determined to practise the operation here. I had to wait for a suitable case till the 6th of July, 1866, on which day I performed lithotrity in presence of the students of the Infirmary. The case terminated favourably, and I have frequently performed it since with great success; and I am glad to say that others are adopting it in preference to lithotomy in suitable cases.*

There are few deformities more distressing to the patient, or to the parents if it is a child that is in question, than *talipes varus*, or club foot. From a very early period of my professional life it has fallen to my lot to operate on these cases. At first I was in the habit of performing the operation necessary to remedy the deformity in the manner recommended in the most reliable treatises on the subject; but I was dissatisfied with the slowness of the improvement, and also with the ultimate result. On studying some cases, I became satisfied that the deformity depended more on the structures in the sole of the foot than on the tendons of the leg. The incision recommended by most authors was evidently made without any well defined object, and naturally failed in its effect. By altering the position, direction, and depth of the incision, I was enabled to divide those structures which I believe to be at fault, and the result altogether exceeded my expectation. This is not the place to enter into detail; but some of the most obstinate cases have yielded after these deep incisions.† In cases of extreme deformity I now excise some part of the tarsus.

The next example is a curious illustration of the application of physiological knowledge to the treatment of disease. It was originated by a German surgeon in 1862; but it had suggested

* See my paper on Lithotomy and Lithotrity. Published by MacLehose.
† See my lecture on Talipes Varus. Published by MacLehose.

itself to me two years previously. In the winter of 1859 I was engaged in making some dissections of the palate and pharynx, for the purpose of illustrating to my students the mechanism of swallowing. In examining the *levator palati* muscle I was satisfied that, in consequence of its origin from the lower part of the orifice of the Eustachian tube, its action in raising the soft palate would at the same time draw down and so open the orifice. It was obvious that the change in the position of the palate from its pendulous to its horizontal direction would diminish the capacity of the upper or nasal compartment of the pharynx, and so expel some of the contained air from the nostril. Now it occurred to me, that if the nostrils were firmly held together by the finger and thumb during an act of deglutition, advantage might be taken of the double action of the *levator palati* to get some of the air thus compressed forced into the Eustachian tube, which might be of service in clearing away any temporary obstacle which was a cause of Eustachian deafness. Just at this time a young lady, in a family upon whom I was making a professional visit, asked me if I could do anything for deafness. I said I did not profess to practice aural surgery; but requested her, after I left, to swallow some water two or three times while she held her nostrils compressed between her finger and thumb. Judge of my surprise when I called next morning, to be told that after swallowing the third time she experienced a sensation of crackling in her ear, and the deafness instantaneously disappeared and did not return. I recounted and explained the circumstance to my students that day; and every year since, when demonstrating the structure of the palate, I have mentioned it in connection with the physiology of swallowing. In 1862 Politzer of Vienna published his new method of restoring Eustachian deafness, by the very means I have described, with the addition of the introduction of a stream of condensed air, admitted to the pharynx by a tube passed through one of the compressed nostrils. Politzerization, as it is now called, is one of the regular proceedings of aurists, and is an almost certain way of removing deafness caused by Eustachian obstruction.

It is strange how long a time sometimes intervenes between the announcement of an undoubted improvement in surgical operations and its acceptance by the profession. I hold in my hand a little volume, published in 1806 by Dr. Jeffrey, at that time Professor of Anatomy in this University. It contains an account of several cases of excision of carious joints—two of the knee, by Mr. Park, of Liverpool, performed as long ago as 1781, and three

of the elbow, by M. Moreau in France, at the beginning of this century. It also contains a commentary on the subject by Dr. Jeffrey, and the description of a saw which he invented to facilitate the proceedings. But the operation did not produce that impression on the surgeons of the day which might have been expected; and it lay almost in abeyance till Mr. Syme rescued it from oblivion, and by adopting it systematically as a substitute for amputation of the arm, became practically the introducer into this country of the now universal excision of the elbow. He also extended it to the shoulder, but strongly objected to its application to the wrist, hip, knee, or ankle. Other surgeons, especially Sir William Fergusson, applied it to these joints; and Sir Joseph Lister, while surgeon in our Infirmary, contrived a systematic operation for removal of the wrist. This extensive manipulation, however, is rarely required, it often being sufficient to remove with gouge and forceps the diseased portions. In a week or two you will see in the Western Infirmary a patient in whom the disease was so extensive that she came to me to have her arm amputated; but by the proceeding I have mentioned she has not only retained her hand, but with her fingers she is able to support herself by needle-work.

One of the most remarkable achievements of modern surgery is skin grafting. When a raw surface, whether the result of ulceration, sloughing, or laceration, is very extensive, the process of cicatrization stops before it is all covered. Under these circumstances the surgeon can transplant a small portion of live skin, which takes root, so to speak, on the raw surface, and is a centre from which cicatrization begins and spreads all around. Cases which formerly were hopeless are now successfully treated by this method.

The Antiseptic mode of dressing wounds has, I believe, been a great boon to surgery; but this is not the place to enter into details on a matter which will form the subject of demonstration in our clinical wards.*

At the present time improvements in surgical manipulation are daily being introduced. Three or four weeks ago, on entering the Infirmary at the morning visit, a foreign gentleman presented me a card of introduction from a friend at that time residing in Germany. The writing was not very legible, and I did not notice the name, but asked the stranger to accompany me. Standing beside the bed of a patient who was recovering from a compound depressed fracture of the frontal bone, without having had a bad

* From the time that Mr. Lister was appointed surgeon to the Glasgow Royal Infirmary, in 1861, till he left Glasgow in 1869, I was his colleague in the surgical wards, and witnessed those experiments which resulted in the development of the Antiseptic principles and practice.

symptom, I said, "We are indebted in great part to one of your countrymen for our present improved mode of treating such cases. We have been taught almost to abandon the use of the trephine by Stromeyer of Hanover." "My father-in-law," replied my visitor. "Indeed," I exclaimed, "and you are?" "Esmarch of Kiel." It so happened that, on the morning in question, I was to remove a large vascular scrotal tumour. Dr. Esmarch accompanied me to the theatre, and the patient was put under the influence of chloroform. Turning to Dr. Esmarch, I said, "It is a great pity that your bloodless method is not applicable to such a case, as I shall operate with great anxiety, owing to the exhausted condition of the man and the great vascularity of the tumour." He at once undertook to apply pressure in a way which, he believed, would prevent any hæmorrhage. Being provided with a long India rubber tube, he passed it round the base of the scrotum, across the pubis, and round the loins, and fixed it in front of the abdomen. To my surprise and delight, I removed the great mass by a complicated and tedious dissection, without the loss of any blood except what escaped at the first incision from the gorged veins on the surface. The man was dismissed with the wound quite healed in three weeks, and I have no doubt the rapidity of his recovery was in great part owing to his having been spared the loss of blood.

But time would fail me were I to recount all the recent advances in surgical science and manipulation. The foregoing examples will serve to prove my position.

And now, gentlemen, in bringing these remarks to a close let me say one word as to our new hospital. Constructed on the best known principles, provided with all the most approved appliances, it gives promise of a great future. There you will have abundant opportunity for clinical observation and instruction; you will lose no time in going from the hospital to your class rooms; and if, during the day, anything of interest or importance should occur in the wards which it would be for your advantage to see, a message can be sent in a few minutes to the University, and at the close of your lecture hour you can go down to the hospital, so that you are in a position to utilize to the utmost the facilities afforded you by the proximity of the hospital. It is for you to take advantage of the opportunities now afforded to you, so as to be a credit to your profession and to your University.

COURSE OF INSTRUCTION IN

CLINICAL SURGERY

By PROF. GEORGE BUCHANAN.

THE CLASS MEETS DAILY AT 9 A.M. IN THE WESTERN INFIRMARY—WARDS ~~IV.~~ 13 AND ~~VII.~~ 19.

MONDAY.—Complete ward visit and clinical remarks at the bed-side.

TUESDAY.—Clinical lecture in ~~West~~ the Operating ~~Room~~ Theatre.
Also, Ward visit to the most important cases.

WEDNESDAY.—Tutorial class for bandaging, &c.
Also, Ward visit.

THURSDAY.—Clinique—short remarks on new cases, which are examined by the students, with the assistance of the Professor, in the class-room, ~~West~~ Operating Room Theatre.
Also, Ward visit.

FRIDAY.—Clinical lecture in the Operating Theatre.
Also, Ward visit.

SATURDAY.—Public operations, thereafter ward visit.

Clan assistant

Ed Bruce Buchanan B Hart. MB (M.