

final sutures given are those of Lembert, Czerny, Gussenbauer, and Halstead, together with a few modifications thereof, a perusal of which descriptions can give no excuse for not understanding, especially as the diagrams are clear and well chosen. For enteror-rhaphy we read the methods described are (1) by circular suture, or (2) by Mansell's; and (1) is performed by (a) immediate suture, or by (b) one of the many "mechanical appliances." Of these latter we are burdened only by the Murphy's button, a bone tube, and a bobbin, Senn's plates being relegated to lateral anastomosis. No criticisms are given, the author contenting himself with impartial statements, for which he will probably be unjustly criticised. We think the passages containing these descriptions and classifications of methods good examples of the precision and lucidity of the diction throughout the book.

For urethrotomy only Wheelhouse's operation is described, and it is probably sufficient. The suture method for inguinal colotomy is described fully, and is preferred to Keelus's operation. The operations on the rectum are those usually performed at St. Bartholomew's; but the trans-sacral operation is fully described, and is easy to follow in its various stages. Simplicity is again evolved out of disorder in the chapter containing the operations for removal of the tongue, Whitehead's and Kocher's methods being alone given, and we quite think they give ample choice for most cases. The surgery of the brain is well and fully dealt with, the clearness of the directions for the site of incisions being very pleasing. The operations for ligation of blood-vessels are accompanied by very useful diagrams of transverse sections of the limb in question. We have also nothing but praise for the chapters on amputation and excision, and what we have said as regards the wisdom displayed in selection of methods where there are many and disordered applies equally to the chapter on plastic surgery, that bugbear (in book knowledge) alike to beginners and, judging from their directions, to seniors. It cannot be a matter otherwise than easy for a critic to find errors of both kinds in any work of so wide a range as the one before us. Operative surgery in 1898 is a vast and growing subject; the choice of knowing what to include or exclude must be difficult, and we can, for our part, easily imagine that omissions have not been made without due thought. Yet we must confess we should have liked a page or two on the procedures associated with suppurative peritonitis, and were disappointed not to find some rules laid down for the length of flaps in the flap amputation. Again, we think the subjects of plugging the nares, incision of tonsillar abscess, and some others perhaps more suitable for a book on surgical handicraft, might have been well replaced by advice on the treatment of anal fissure, webbed fingers, and on the injection of hydrocele. The treatment of ruptured urethra is not mentioned. We think, too, that Paul Berger's operation of amputation of the shoulder by an external flap which is brought over the wound left after excision of mamma deserves a place in the book, and we think abdominal section in some cases of hernia where gut is gangrenous should have been alluded to. Most of the figures are very good; some strike us as unnecessary, a quite unusual feature in books on the subject. Except these remarks, the nature of which indicates the difficulty of much adverse criticism, we have nothing but unqualified approval for the *Manual*. The language is crisp and clear, and the information "get-at-able." There are no annoying sarcasms, and we are not burdened with historical details, which the authors of some larger but less useful manuals think necessary. We consider it one of the *multum in parvo* works which are in no sense cram books (it contains over 600 pages), but may rather be considered concentrated essences of what is known of the subject at the time of writing, and as such we cordially approve of it, and recommend it both to students and practitioners, and think it is destined to be largely read. Mr. Jessop also gives a clear and judicious account of some of the more important ophthalmic operations, and, like all the books of its series, it is neat and well got up.

Pathological Department of the Journal.

SPECIMENS sent by subscribers to the JOURNAL will be examined in the Pathological Laboratory, and a report furnished under the supervision of Dr. Andrews, at the following rate:

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Appointments.

CORNISH, S., M.B., B.S.(Lond.), appointed Ship's Surgeon to the ss. Merionethshire, Japan Line.

LAWRENCE, B. E., M.R.C.S., L.R.C.P., appointed House Physician to the Victoria Hospital for Children, Chelsea.

FARMER, W. H., M.R.C.S., L.R.C.P., appointed Surgeon to P. & O. ss. Canton.

JOY, N. H., M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Southport Infirmary.

WAY, A. O., M.R.C.S., L.R.C.P., appointed House Surgeon to the Tottenham Hospital.

BRIGGS, J. A. O., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Finsbury Dispensary.

WILSON, NORMAN O., F.R.C.S., appointed Honorary Medical Officer to the Princess Louise Home for Young Girls, Kingston Hill, in conjunction with Mr. Arthur Gale.

COLBY, J. G. E., M.R., R.Ch.(Oxon.), L.R.C.P.(Lond.), F.R.C.S., D.P.H.(Cantab.), has been reappointed Medical Officer of Health by the Norton Rural District Council.

GIBBES, HENAGRE, formerly Lecturer on Physiology at the Westminster Hospital Medical School, and afterwards Professor of Pathology at the Ann Arbor University, Michigan, has been appointed Health Officer to the City of Detroit.

BEIT, F. V. O., M.R.C.S., L.R.C.P., appointed Temporary Plague Officer to the Indian Government.

Examinations.

UNIVERSITY OF LONDON.—*Preliminary Scientific: First Division*.—H. V. Wenham. *Second Division*.—F. M. Bishop. *Chemistry and Physics*.—A. C. Brown, W. P. Price, E. G. Fringle, E. B. Smith. *Biology*.—W. C. F. Harland, R. V. G. Monckton.

UNIVERSITY OF LONDON.—*Intermediate M.B.: Second Division*.—F. M. Howell, R. H. Paramore. *Excluding Physiology*.—J. C. M. Bailey, R. C. Bowden, A. B. Brown, A. H. John, E. M. Niall, T. M. Pearce, E. Wethered. *Physiology only: First Division*.—A. G. Ede, A. T. Pridham. *Second Division*.—W. S. Danks, C. S. Frost, I. H. Gandy, J. C. Marshall, and F. W. Sheppard.

SOCIETY OF APOTHECARIES.—*Surgery (Section I)*.—G. C. Hobbs. *Medicine (Section II)*.—J. B. Cautley (Diploma).

Births.

PENNY.—On February 13th, at Muswell Hill, the wife of A. Gervase Penny, M.A., M.D., B.C.(Cantab.), of a daughter.

SELBY.—On February 11th, at Teynham, Kent, the wife of Prideaux George Selby, of a son.

SHUTER.—On February 4th, at Oaklands, Chiswick Lane, the wife of George Percy Shuter, of a daughter—prematurely.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *The Gyvescope*, *St. Thomas's Hospital Gazette*, *St. Mary's Hospital Gazette*, *St. George's Hospital Gazette*, *London Hospital Gazette*, *Middlesex Hospital Journal*, *The Student*, *The Hospital*, *The Nursing Record*.

St. Bartholomew's Hospital



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NOTICE.

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St. Bartholomew's Hospital Journal.

APRIL 14th, 1898.

"Equam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

Cases in which Life is endangered by Large Hæmorrhage, and their Treatment.

A Clinical Lecture

By HOWARD MARSH, F.R.C.S.

SOME examples of imminent danger to life from large hæmorrhage have lately been under observation, and I propose to ask your attention to them to day. The subject is obviously one of first-rate importance in clinical surgery, and one with which you may all, in the future, have to deal in a practical form, unless—as can rarely happen—you are engaged entirely in the treatment of medical cases. To those who practise in

districts where severe accidents are common, or who attend many confinements, instances of dangerous hæmorrhage must be of frequent occurrence. The subject acquires additional interest at the present day from the fact that, as I will presently show, we are now in possession of means of treatment which, when adequately used, are successful in a much larger proportion of instances than was formerly the case, and with which, therefore, it is the duty of every surgeon to be familiar.

Hæmorrhage so severe as to threaten the life of a patient may occur as the result either of a surgical operation, or of an injury, such as extensive laceration of a limb or a wound, gunshot or otherwise, by which large blood-vessels are divided.

As to profuse hæmorrhage in connection with surgical operations. The cases in which it is most likely to occur, if the proper steps are not taken to prevent it, are amputation at the shoulder and the hip joints. There are some other proceedings in which the same peril may exist, at all events if the operator does not possess sufficient experience, or if he omits to adopt the necessary precautions; but it is only the two operations that I have mentioned of which it can be said that under ordinary circumstances hæmorrhage is their main danger. I need scarcely remark that in operations in which this risk is present, the obvious duty of the operator is to make all his preparations with care and forethought, and to secure a full amount of the best assistance within his reach.

As to amputation at the shoulder-joint. This operation is performed by different methods according to circumstances, and the danger of hæmorrhage will depend almost entirely on the case. In some instances it will be comparatively small. This is the case when amputation is performed for some condition which involves only the lower half of the arm, and leaves all the structures in the neighbourhood of the joint in a normal condition. Here, for instance, is a humerus which presents a tumour (myxosarcoma) projecting from the middle of its shaft. The patient was a lady of fifty, in whom I amputated the limb. All the parts in the upper third of the arm were

normal, and there was no difficulty in controlling hæmorrhage during the amputation, which was performed by Spence's method. In this proceeding a racket-shaped incision is made, which commences a little external to the coracoid process, and follows the line shown in the figure.



Diagram showing the line of incision in Spence's method of amputating at the shoulder-joint (kindly lent by Messrs. Cassell and Co.).

This incision in its upper (vertical) part passes through the clavicular fibres of the deltoid; it then crosses outwards in front of the humerus, and divides the deltoid at its insertion into the bone, and is prolonged to the posterior border of the axilla. It is here met by a second incision starting from the lower end of the vertical incision, and encircling the inner and back part of the limb. This latter incision extends through the skin and fat only. The flap containing the deltoid and posterior circumflex artery is next dissected up, so that the head of the humerus and the short muscles covering it are exposed. These muscles and the capsule of the joint are divided, the head of the bone is disarticulated, and the parts which still connect the limb with the trunk are severed. Hæmorrhage is controlled by an assistant, who grasps the inner portion of the flap before the axillary vessels are divided.*

This operation may be carried out with the loss of not more than three or four ounces of blood, and it gives in all respects an excellent result. It cannot, however, be employed when the upper end of the limb is involved in disease—when, for instance, there is a sarcoma springing from the upper end of the humerus—because the surrounding soft parts are likely to be involved, and further, because these structures are so vascular that hæmorrhage cannot be controlled in the manner just described.

(1) In former years it was attempted to control hæmorrhage by compressing the subclavian artery with some instrument or with the fingers. Let me say at once that it is quite unjustifiable to trust to this measure, and let me give a case in point. Some years ago I adopted this method myself, with the result that hæmorrhage was so severe that the patient survived only about three hours. The case was one of a very large sarcoma, involving the upper end of the humerus and

* For a full description of this operation see Jacobson or Treves.

extending inwards as far as the line of the nipple. The subclavian was compressed by as able an assistant as could anywhere be found; but during the necessary movements of the limb in the course of the operation his fingers were lifted completely off the vessel. The operation was finished without delay. The patient, however, very nearly died at the time, and afterwards rapidly sank, in spite of all that could be done for him, including transfusion. The case is one which I have always remembered with great regret, and which made it clear that this method of amputation ought to be completely given up.

(2) It has been proposed either (as a first step) to tie the axillary artery just below the clavicle through an incision which traverses the pectoral muscle, or else to ligature this vessel when it comes in sight in the anterior part of the wound. A material objection to the first proceeding is that it may involve considerable difficulty and delay: to the second, that serious bleeding may occur before the artery can be secured.

(3) The third part of the subclavian artery may be tied. This is the proceeding which ought to be adopted. As both it and the surrounding soft parts are healthy the artery can be easily reached, and when it has been tied no blood can enter the limb except through the posterior scapular artery and some smaller vessels derived from the thyroid axis, which can be secured as soon as they are divided. Three years ago a man was admitted into the hospital with a tumour in the upper part of the humerus, the circumference of which was no less than thirty-six inches, and almost exactly corresponded with the circumference of the patient's chest. Before performing amputation I tied the subclavian artery, and then by raising the limb emptied it of the venous blood which it contained. Although this tumour was of such enormous size (it weighed thirty-five pounds), it was estimated at the time that no more than four ounces of blood were lost. The operation was perfectly well borne, and the patient suffered in no appreciable degree from shock. No two cases could show more conclusively than these, when their results are contrasted, the value of tying the subclavian before amputating the limb in instances in which a tumour involving the upper part of the humerus is of considerable size. In the one the patient lost his life from hæmorrhage; in the other, although the tumour was perhaps as large as any for which amputation at the shoulder-joint has ever been performed, the amount of hæmorrhage was less than that which often attends amputation of the breast for carcinoma. It must be distinctly remembered in these cases that hæmorrhage is virtually the only danger which, at the present day, attends amputation of the upper limb; for the wound left by the operation is a small one even when the tumour which has been removed is of very large size, and rapid healing takes place.

You may remember that a few weeks ago I showed at the Thursday consultations a young man of twenty-one, who

had sarcoma of the upper end of the humerus. The limb was amputated on the following Wednesday, March 9th. On 12th he was walking about his room, and on 14th I found him sitting up in a chair having his hair cut.

I have had occasion to amputate at the shoulder-joint six times for the following conditions:—aneurysm of the axillary artery; glandular abscess in the axilla, in connection with which pus burrowed extensively down the arm and made its way into the shoulder-joint, with the result that the patient nearly died of exhaustion; and four cases of sarcoma. All the patients, with the exception of the man who died of hæmorrhage, recovered, and in each case the wound soon healed.

There is no doubt, however, that in the future the proceeding that will be generally adopted in cases of large tumours of the upper end of the humerus is the so-called "amputation interscapulo-thoracique," or amputation of the whole limb including the scapula. This is often termed Berger's method, a French surgeon named Paul Berger having published a full account of it in 1887. Formidable as it sounds, the operation, in competent hands, is not attended with much difficulty, nor is it followed by a mortality of more than, if as much as, ten per cent. The first step consists of removing part of the clavicle and ligaturing the subclavian artery. Thus hæmorrhage is guarded against. The great advantage which this operation secures is the more free removal of structures which possibly—or in some cases certainly—are involved in disease.

Amputation at the hip-joint for malignant disease of the upper end of the femur is one of the most dangerous of the legitimate operations of surgery at the present day. This danger depends in part on shock, apart from the loss of blood: but very largely also on the amount of hæmorrhage by which it is attended, and which takes place from the branches of the internal iliac artery which are distributed to the upper and back part of the limb. To control hæmorrhage from these vessels different means have been employed.

(1) Lister's abdominal tourniquet for compressing the abdominal aorta. The use of this appliance involves two dangers: injury of the intestine, or of the sympathetic nerves, by the pressure which it exercises upon them; and by fixing the abdominal wall it may seriously embarrass respiration. Should this effect be observed while the operation is proceeding the instrument cannot be removed, and a fatal result may occur.

(2) Davy's lever may be used. This contrivance consists of a rod eighteen inches in length, and about the size of the index finger, and covered with a smooth sheath. It is introduced into the rectum, and made to compress the common iliac artery where it lies between the lumbar spine and the psoas muscle. I employed this instrument on six or seven occasions some years ago. It is an ingenious invention, and in the hands of those who have carefully practised its use on the dead subject, and are careful and

steady at the time, it may be safely employed; but in unfamiliar hands it may very easily lead to a serious catastrophe, either because it injures some of the adjacent parts (I have known it thrust through the bowel), or because it fails at the critical moment to control the artery.

(3) Elastic compression may be used by means of a strong india-rubber cord encircling the limb at its junction with the trunk, after the method of Jordan Lloyd.* This method is a valuable one if efficiently used, but it leads to extensive venous oozing from pressure-paralysis of the vaso-motor nerves.

(4) I have not had an opportunity of resorting to it, but I believe the best way to control hæmorrhage during this amputation will prove to be by direct compression of the common iliac artery by introducing the hand into the iliac fossa (of course behind the peritoneum) through an incision in the abdominal wall. The wound would not involve any material danger, and a good assistant could effectually hold the artery.

But taking now those cases in which, whether as a result of an accident or an operation, the patient's life is in imminent danger from severe hæmorrhage, what treatment should be employed? First let me remind you of the symptoms which indicate that the patient's condition has become critical. These symptoms are extreme pallor, best observed in the mucous membranes, which normally are red—in the lips and tongue. These parts now become quite bloodless. The surface is bathed in a cold sweat; the pulse is small, soft, and rapid, 130 to 160 or quicker still, and fluttering, so that it cannot be counted; respiration is sighing; the patient is restless, and complains of noises in the ears, and, although it is broad daylight, that he cannot see; his mind wanders, and he becomes incoherent; convulsions may occur, and the patient may pass into a condition of profound and fatal syncope.

The crisis is one of supreme moment to the patient, and of grave responsibility to the surgeon. It is truly a case of life or death. Let the surgeon hesitate or fail to use the proper means, and the patient will rapidly sink. Let death be averted for six or twelve hours, and in two or three days the patient may be convalescent with many years of vigorous life before him.

The treatment of cases of this kind consists (a) in general measures, such as artificial warmth by hot bottles and sufficient warm clothing of a light description; raising the foot of the bed, and removing the pillows, so that the head is low; and bandaging the limbs, so that all the remaining blood may be confined to the brain, heart, and lungs. (b) In the use of subcutaneous injections of ether or strychnia. Both these agents act rapidly on the heart, but of the two strychnia is much the more useful, as its effect is much more prolonged. Liqueur strychninae ℥ij (equal to 3½ of a grain) may be injected at intervals of two or three hours. Strychnia

* See Jacobson, or other works on Operative Surgery.

under these circumstances has a very strongly beneficial result upon the action of the heart. (c) In the introduction of some appropriate fluid into the general circulation.

First, a few words about blood-transfusion. This is carried out by either the immediate or arm-to-arm method, or indirectly; blood being drawn from the giver into a vessel, in which it can be kept at a suitable temperature, and from which, when it has been defibrinated, it can be introduced into one of the veins at the elbow or some other part.

As to this proceeding, the time has come for saying that it has been finally superseded. It has in the first place always been open to the following serious objections. It is an operation which, in unfamiliar hands, is by no means free from danger, and it involves difficulties which only those who have had previous experience of it are likely to overcome: it requires a special apparatus, which is little likely to be fit for use when it is wanted: and the necessary amount of blood cannot always be obtained; while, in the second place, a method which is at the same time much simpler and much more efficacious has been introduced. The method consists of the infusion of a saline solution in the form of a drachm of common salt in a pint of sterilized water. It can be readily carried out by the aid of a glass funnel and a sterilized india-rubber tube fitted with a metal nozzle, which costs only two or three shillings, and is ready for use as soon as it has been boiled. Two or three pints of the solution at a temperature of 105° in the funnel are slowly introduced into one of the veins at the bend of the elbow. It is a piece of great good fortune alike to the patient and to the surgeon that so troublesome and so difficult a proceeding as blood-transfusion need no longer be attempted, and that we have at our disposal a method which is easily used, and which affords very valuable results. It seems clear that the infusion of a saline solution is now to be regarded as a proceeding by which, if it is not too long delayed, many lives that must otherwise be lost can be saved.

The following case furnishes an excellent illustration of the symptoms which attend, and the treatment which must be adopted in instances of severe hæmorrhage.

F. H—, aged 24, a strongly built man, was admitted into Stanley Ward on July 15th, 1897, with an extensive crush of the right upper limb produced by a lift accident. There had been severe hæmorrhage, and free oozing was still going on. Amputation through the upper third of the arm was performed. The patient bore the operation well, but at seven the next morning his pulse was 140 and thready, his temperature 103.3°; and he was in a cold sweat, extremely pale and very restless. The foot of the bed was at once raised; hot bottles were applied; small quantities of brandy and water were given by the mouth; an ounce of brandy with an equal quantity of water was introduced into the rectum, and three minims of liquor strychnine were injected subcutaneously. In spite of this treatment, however, rest-

lessness and pallor increased, the pulse was still 140 and becoming weaker, and the patient was sick, so that it was impossible to continue treatment by the mouth. Three pints of saline solution at a temperature of 105° in the funnel were injected into the left cephalic vein by Mr. Harold Meakin, Senior House Surgeon. This was followed by marked and immediate improvement. Some colour returned to the face; the patient said he felt better and became less restless, and the pulse was better both as to volume and tension. This improvement was maintained till 3 p.m., when he had a shivering fit, and the temperature rose to 104.4°. The pulse went up to 160, and could scarcely be counted. He sweated profusely and was extremely pale. He became incoherent in his speech. Another hypodermic injection of strychnia was given, the legs were firmly bandaged, and the foot of the bed still more raised. From this time there was an uninterrupted recovery.

For some hours after his dangerous symptoms were developed this patient seemed to be dying. Yet the crisis once over, he quickly rallied, and in the course of two days was almost as well as if nothing unusual had occurred. He was a man of splendid courage and steadiness, and until his mind became clouded he took a kind of objective interest in his own case, watching everything that was done, and saying that he knew he was perhaps going to die, but that he would not do so if he could help it. This state of mind no doubt conducted very largely to his recovery.

Another case may be briefly related. A woman, attended in her confinement in the Extern Midwifery Department, suffered severe hæmorrhage from retained placenta, after giving birth to twins. She became severely collapsed and extremely pale, and so restless that she was with difficulty kept in bed. No radial pulse could be felt, and the heart-sounds were faint and confused, and too rapid to be counted. The patient's face was covered with a cold clammy sweat. She had external strabismus, rambled in her talk, and, although it was broad daylight, complained that the room was dark. The flooding having been stopped, the foot of the bed was raised, her limbs were firmly bandaged, hot water bottles were applied, brandy, milk, and hot water were given by the mouth, and ether was injected subcutaneously. Two hours later, however, there was no improvement, and the patient seemed—the notes state—in articulo mortis. Two and a half pints of saline solution were now injected into the right cephalic vein by Mr. Meakin. The patient did not appear to feel the wound, and the tissues divided were pale and bloodless. Before the infusion was completed improvement was observed, the restlessness ceased, colour and warmth of the surface returned, the squint disappeared, the pulse in the radials returned, and the patient said she could see plainly, and that she felt much better. Later, strychnia was injected subcutaneously, and two pints of saline solution were intro-

duced into the rectum. The improvement was maintained, and the patient ultimately completely recovered.

No reasonable doubt can be entertained that the life of both these patients was saved by the introduction of the saline solution; and such cases are steadily becoming more numerous in practice at the present day.

Nor will the service which the saline solution renders be limited to civil practice. In military surgery, where cases requiring it are numerous, a method so free from elaborate detail, and for which the materials are so readily available, may be expected to be freely employed.

Several cases in civil practice have, indeed, already occurred which indicate that in many instances in which soldiers in the field have met with injuries requiring amputation or some other operative interference, preliminary infusion will be resorted to with highly beneficial effects.

In cases of less gravity, or where infusion cannot at once be employed, a pint of the saline solution to which an ounce of brandy has been added should be introduced into the rectum. In some cases the saline solution has been injected into the subcutaneous tissue of the thoracic wall or some other part; while some authorities recommend that in abdominal operations one or two pints of the solution at a temperature of 104° should, just before the wound is closed, be injected into the cavity of the peritoneum. Whatever the method employed, there seems good reason to hope that the introduction of saline solution into the systemic circulation will, by exercising a beneficial effect upon the blood-pressure, afford excellent results.

Perforating Gastric Ulcer.

A Paper read before the Abernethian Society on
November 11th, 1897.

By R. DE S. STAWELL, B.A., M.B., B.C.

PART II.



DIAGNOSIS OF PERFORATION.—Successful treatment, it is now almost unnecessary to say, depends primarily on early diagnosis. In a typical case, where an ulcer on the anterior wall perforates directly into the general peritoneal cavity, this does not present any great difficulty. With a history of sudden agonising pain in the epigastrium, perhaps occurring shortly after an indigestible meal, followed by marked collapse, vomiting, a rigid, motionless abdomen and contracted left rectus, extreme epigastric tenderness, disappearance of liver dulness, and shallow respiration restricted to the thorax, with such a train of signs and symptoms occurring in an anæmic patient who has been suffering from pain and vomiting after food, with constipation, few surgeons would hesitate to open the abdomen. But unfortunately any one or more of these may be absent, and the cases are by no means always so straightforward as the following interesting one, conducted to a successful termination by Mr. Barker,* will show.—A woman aged twenty-four, with no gastric symptoms except some trifling dyspepsia, came under his care with this history. A truss, which she usually wore satisfactorily, retained an inguinal hernia from which she was suffering, but on taking the truss off one night the hernia came down. She reduced it herself, and soon after-

wards was seized with a violent pain in the right inguinal region. When seen, although in pain, she was not collapsed, she had not vomited, nor was there any abdominal distension. Morphia was given and belladonna fomentations applied. A few hours later she was still in pain, her temperature had risen to 101.8°, and the abdomen was tender and tympanitic. A provisional diagnosis of reduction *en masse* or appendicitis was made, and operation decided on. Eighteen hours after the onset of the pain an incision over the inguinal ring was made, but nothing was to be seen in that region. Thrusting a sponge on a holder up towards the liver there came a rush of gas and fluid; it was now noticed that the liver dulness was absent. A second five-inch incision was made above the umbilicus, a perforation found in the anterior wall of the stomach, and sutured, the patient recovering. The operation lasted two hours.

In contrast to this case may be cited another reported by Dr. Alexis Thomson.* The patient was a woman aged twenty-seven, who for nine years had suffered from gastric complaints, with pain and vomiting, occasionally of "coffee-ground" material, after meals. At 7 p.m. she was suddenly attacked by severe pain above the umbilicus, with alarming faintness, cramp, and powerlessness to move her limbs. She felt sick, but could not vomit. At 10.30 (three and a half hours later) she was indifferent to everything but the abdominal pain; there was marked epigastric tenderness a little above and to the right of the umbilicus; the abdominal wall was retracted and did not move on respiration, the muscles being hard and board-like. The liver dulness was diminished to one inch and a half in the right mammary line. Her pulse was uncountable. The diagnosis was thought clear, and operation determined on. At 1.30 pain and tenderness had subsided to a considerable extent; this was considered the reaction period, and the operation commenced. The peritoneum was found perfectly normal, and on the anterior surface of the stomach was a firm, pale, scarred area, the serous coat being adherent over it, but retaining its normal lustre. The abdomen was at once closed, and the patient made an excellent recovery.

When cases like the above are read, occurring as they did in the practice of surgeons experienced in this particular subject, and bearing in mind the importance of early recognition, the urgent need of some diagnostic sign is felt. The presence of free gas in the peritoneal cavity would be such if it could be demonstrated, and it was once thought that this might be done by the absence of the liver dulness. Unfortunately, as every one now is aware, this may be obliterated by intestinal tympanitis alone, or diminished by distension, probably of nervous origin, as in the preceding case. On the other hand, the gas escaped from the viscus may be too small in volume, or be imprisoned by adhesions, or, as Dr. Gee points out, the liver may be adherent to the parietes; in these cases dulness would persist. Nevertheless complete absence of the liver dulness would be a very valuable sign if it could be detected soon after symptoms of perforation; and the question naturally occurs to one, is there no ready means of introducing gas into the stomach in cases where perforation is suspected, and observing if the liver dulness is altered? The idea is not a new one. Senn long ago advocated intestinal inflation by hydrogen; Mr. Walsham has demonstrated a rupture of the bladder with success in a similar manner; and I find that Dr. Hale White remarked last year that passing gas into the stomach would probably be of use in diagnosis. Senn's plan, I think, is inapplicable in time to be of any use, and, so far as I know, no other practical plan has been suggested. Some simple method, readily and quickly applied, and harmless to the patient, appears to be needed, and I would point out the apparent suitability for this purpose of a process with which we are all familiar, the method of inflating the organ with tartaric acid and bicarbonate of sodium. The gas generated by small quantities (one drachm) of these substances, which are always readily procurable, quickly enables the outline of a dilated stomach to be observed, and it appears probable that in the event of a perforation being present the escaping gas would cause obliteration of the liver dulness, previously noted to be present, in a few minutes. It is possible that after some time the gas passing into the intestines might so distend them as to bring about diminution of the dull area, but this would not occur till later, while the distended coils and vermicular movements would probably be evident. The obvious objections to such a method are—(1) the danger of rupturing an ulcer which has not perforated, (2) breaking down protective adhesions round the aperture, (3) inducing increased extravasation of gastric contents, (4) disseminating matter already escaped, (5) bringing on vomiting.

(1) As regards the first point, it seems that any person who was

* Lancet, 1896, vol. ii, p. 1583.

* Lancet, 1896, vol. ii, p. 11.

suffering from an ulcer which could give rise to symptoms suggestive of perforation, and whose base was so thin as to be ruptured by gas. And here I venture to urge that in cases of acute abdominal affections in males the possibility of ruptured gastric or duodenal ulcer be always borne in mind. The St. Bart.'s figures show that during the past twenty-eight years the deaths from gastric perforation alone have been in nearly equal proportion (8 to 9) in males and females, but a greater number have actually been met with in men. When one adds to this perforated duodenal ulcers, the proportion is considerably greater in the men; while the usual situation renders the perforations especially suitable for operative treatment. Figures derived from comparatively small numbers of cases are always apt to be misleading; nevertheless, on comparing the list of published cases of operation where the women predominate in the proportion of 7 to 1, one cannot help feeling that many cases of perforation in males are, in all probability, not looked for and not diagnosed. Two cases occurred in this hospital where the abdomen was actually opened, in patients aged twenty-five and fifty-five respectively, but the appendix being normal, and no cause of obstruction found, the wound was closed without an examination of the stomach being made. At the autopsies easily accessible gastric perforations were discovered. In another, with a well-marked history, a little pus was evacuated, but the cause was not demonstrated till post mortem.

Differential diagnosis.—The affection must be distinguished chiefly from acute intestinal obstruction, strangulated hernia, appendicitis; hepatic, renal, and intestinal colic; the pelvic affections of women, hæmorrhage into the peritoneum, perforation of other viscera, and gastric crises. Professor Clifford Allbutt has drawn attention to the alarming symptoms of collapse, with ashen cold face and blue nails, consequent upon the intenser attacks of gastro-enteralgia.* Rectal and vaginal examinations must be made, and the differential diagnosis conducted on ordinary surgical lines. Barling† lays stress on the ability of the bowels to act, as an assistance in diagnosis.

Operation.—If perforation has been diagnosed the question arises, shall an immediate operation be undertaken? There are able surgeons who believe that it is right under certain conditions to delay active measures, hoping that by keeping the patient absolutely at rest the mischief may remain localised, and the resulting abscess subsequently opened and drained, when the patient may be in a better condition. From a study of the reported cases and post-mortem records I would say that (provided, of course, the patient is not so collapsed that operation *per se* would be fatal) such delay could only be justifiable if, firstly, the perforation occurred a considerable time after a meal, and that a very light one; and secondly, the patient has remained absolutely at rest after the rupture. Such a happy combination of circumstances occurred last year in a case which gave Mr. Marsh the honour of being the first surgeon at St. Bart.'s to successfully suture a perforated gastric ulcer. These are the notes of the case, kindly given to me by Mr. Berry. The patient was a girl æt. 21. At 5.30 p.m., three hours after eating some cake, she was suddenly attacked by a violent pain in the abdomen, followed by retching and vomiting, with complete constipation, both symptoms continuing till admission. She immediately went to bed, and remained lying down until the evening of the second day (forty-eight hours), when she was brought to the hospital. She was then collapsed and looked very ill, the abdomen was distended and tender. Perforation was diagnosed, and the abdomen immediately opened, fifty hours after the first onset of the symptoms. After some research a small perforation was found on the anterior surface near the oesophageal end of the lesser curvature. There was a little lymph in the immediate neighbourhood of the perforation, and a little on the colon; there was also a very little blood-stained fluid in the peritoneal cavity. The perforation was closed with four silk Lembert's sutures. The immediate neighbourhood was washed with sterilised water, the rest of the abdomen not touched. No drain was used. A good recovery, and patient left the hospital thirty-five days afterwards. She was seen six months later, when she was in good health.

There are several points in this interesting case which combine to make it unusual, besides the fact that it is one of the few cases on record of successful suture after a lapse of twenty-four hours, the mortality of published operations alone being 87 per cent. after that time. In the first place, the time which had elapsed after the ingestion of food was longer than is common, though we have seen that perforation may occur at any time. The last meal was at 2.30; she then had only some cake, which was probably all the food she had since breakfast, so that in three hours, when the perforation took place, the stomach was, in all likelihood, empty. Now the situation of the

diagnosis. The locality of the pain and the physical signs of the abdomen and chest have been already touched on.

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ulcer, on the anterior surface near the oesophageal end of the lesser curvature, is almost an ideal place for a perforation, surgically accessible, and yet both in the erect and recumbent position affording little opportunity for gastric extravasation. Then the patient did the best thing she could have done—she went to bed and remained there. It is interesting to note that even under these most favorable circumstances no real adhesions were formed; only a little lymph was found at the "autopsy *in vivo*," as Mr. Bennett says.

Unfortunately the position of an ulcer cannot be diagnosed; during those two days the poisonous contents of the stomach might have been leaking out and infecting the peritoneum, gravitating to the recesses behind the liver and spleen, and probably extending to the pelvis. Adhesions might have formed in such a case, but instead of limiting the extravasation they would, in Mr. Jacobson's words, tend to "conceal the ulcer, mat viscera together, and so form culture pools for bacteria, and hamper attempts at cleansing the peritoneum." In the exceptional instances in which a local abscess might result, it would be in a position most difficult to drain satisfactorily.

It has been calculated that every hour of delay adds 5 per cent. to the risk. Weir has found that of the published cases of operation the mortality under twelve hours is 30 per cent., under twenty-four 76 per cent., and above that limit 87 per cent. This is deduced from the failures which have been reported alone; how many deaths after that time have probably never been recorded, the diagnosis having been made too late! If, then, an expectant course be adopted, it must be with a full knowledge of its dangers.

The time to operate.—If, as will usually be the case, laparotomy is decided upon, the next point to determine is the most favorable time for operative interference. Most surgeons hope for a reaction after perforation, and employ any spare time there may be in making the necessary preparations. Some, however, doubt the existence of this favorable phase, and many cases appear to go steadily from bad to worse; in these, waiting simply means the loss of valuable time. Alexis Thomson, who has recorded several successful cases, advises immediate operation in all cases, finding that the anaesthetic diminishes the shock, and the patient's vitality is improved by the operation. Though probably many will disagree with this opinion, one must remember that intensely irritating and septic material is, in all probability, lying in contact with the peritoneum near the great nerve plexuses, and the sooner it can be removed the better. On the whole, it would seem the best plan to operate, if possible, not later than two or three hours after perforation, and this generally means at once, even if no reaction is evident.

Preparation of patient.—Every care must be taken to guard against shock as far as possible. A nutrient and stimulating enema should be given, and the patient kept warm, a hot-water bed being used, and hot bottles and flannels applied to the extremities. Mr. Barker swaths the patient from head to foot in warm cotton wool.

The operation itself may be considered in separate steps.
Incision.—This should be, of course, above the umbilicus, and various situations have been suggested. Incisions in the middle line, about one inch to the left, diagonally between the linea alba and linea semilunaris, and through the latter structure, have all been advocated. The median incision made slightly to the left to avoid the falciform ligament, as Mr. Lockwood suggests, is probably the best on the whole, certainly in male subjects, where the perforation is most likely to be near the pylorus, either in the stomach or duodenum. A five-inch incision is generally needed, and should be made at once; in the case of women the wound will often require enlarging by a transverse cut through the left rectus, almost to the costal margin. This method of procedure appears to give access to the whole of the organ. As soon as the peritoneal cavity has been opened, free gas and often gastric contents are observed.

Search for the perforation.—If but slight extravasation is observed, Mr. Jacobson advises shutting off the rest of the abdomen with tampons or sponges before disturbing the stomach. The anterior surface and lesser curvature should then be carefully explored, the stomach be drawn down, and the liver held up; if nothing is found, the gastro-hepatic omentum should be gently torn through, and the posterior surface examined. The finger will generally reveal the perforation itself or some surrounding thickening, though in many cases it has been found difficult to locate the aperture. If such search be negative, sterilised water may be poured round, and the organ treated as a bicycle tyre, when on pressure the escaping bubbles may indicate the position of the puncture. As a last resource, milk or other fluids may be injected by a stomach-tube. When the hole is found, some recommend emptying the stomach,

and if this can be done by squeezing, it is probably advantageous. It does not appear to be advisable, however, to spend much time in washing the stomach out, either through the perforation or by the mouth, as vomiting does not seem to be thus prevented, and the operation is therefore unnecessarily lengthened. It would probably be better, I think, to follow Weir's advice and postpone lavage till the sutures are in position, when, if the condition of the patient admits, the stomach may be irrigated, and the efficient closure of the aperture tested at the same time. If it be found necessary at any time to bring the organ out of the wound, it must be kept carefully covered with warm aseptic sponges in the ordinary way.

Closing the perforation.—The experience of surgeons seems to be strongly against excising the ulcer. It delays the operation, and may cause troublesome hæmorrhage, while as far as one can see it is unnecessary for the satisfactory recovery of the patient.

If much thickening surrounds the ulcer, and the stomach walls are friable, or cannot be invaginated so as to occlude the aperture, the surgeon may either use an oriental plug as Donnic did, pass a tightly fitting drainage-tube into the hole, and plug it round with gauze, as Maurice of Reading recommends; or follow Paul's method of gastrostomy with his special glass tube, all of which devices have proved successful, or the stomach may be stitched to the parietal wound.

In the majority of instances the aperture can be readily and securely closed by a few Lembert's sutures, passed into healthy tissue wide of the perforation, so as to invaginate the margins of the aperture, a double row being inserted if necessary. In only a very small proportion of the fatal cases does death appear to have been due to subsequent leakage, and I have found but one in which post mortem the stitches were shown to have given way.

Where there is plenty of room on the wall of the stomach the direction of the invagination for suture does not appear to be material, but when the pylorus is approached the danger of producing subsequent stenosis must be carefully borne in mind. To avoid this Thomson advises that the edges to be approximated should be folded in at right angles to the long axis of the lumen of the part, so as not to diminish the circumference of the canal. This method, though probably useful, does not appear free from objections, for besides causing a crescentic ridge to project internally, there must be some tendency to produce kinking of the gut, which would further diminish its calibre.

As regards the accessibility of the perforation, it appears nearly always to be within reach of surgical measures. In Weir's list in only 8 per cent. was the aperture not closed, and in several instances this was stated to be due to the condition of the patient.

Cleansing the peritoneum.—This is probably the most important part, practically, of the whole operation. Mr. Pearce Gould, in his able introduction to a discussion on perforations before the British Medical Association, said that hitherto too much attention had been devoted to closing the perforation, and too little to cleansing the peritoneum, comparing it to locking the stable door after the steed had gone, and I think one has only to look over the records of the operation cases to feel that he was right.

There seems to be some dispute as to whether sponging or irrigation is the better procedure. The advocates of the former method say that by this means solid material is more easily and quickly removed, the peritoneum being little damaged, and left in a better state to contend with such germs as must inevitably be left behind; while no risk is run of dissemination of septic material in parts as yet uninfected.

For irrigation it is claimed that when properly carried out the stream of fluid, easily directed into every part of the abdomen, quickly sweeps the septic matter away; it is said more damage is done to the peritoneum by the friction of the sponges than by the contact of a warm non-irritant fluid, such as should always be used; while collapse is stated to be lessened, and the patient's condition materially improved by the process. Certainly in several instances the pulse has been observed to improve, and vessels previously unnoticed have begun to bleed.

The position of the stomach renders wide-spread infection of the peritoneum probable in cases of perforation, for the extravasated gastric contents tend to gravitate towards the pelvis, any movement of the patient assisting the dissemination; while it appears unusual for adhesions to be effectual in limiting the process. Nevertheless it is unlikely that the whole peritoneal surface would be affected within a few hours of rupture, so that every care should be taken not to increase the area for septic absorption, as irrigation, if carried out by itself, appears almost certain to do.

* *Lancet*, 1895, vol. i, p. 1252.

† *Brit. Med. Journ.*, 1893, vol. ii, p. 1044.

* *Lancet*, 1884, vol. i, p. 510.

† *Loc. supra cit.*

Probably the best results are to be obtained from a combination of the two methods, as much material as possible being carefully sponged away, especially round the corners of the liver, as Mr. Lockwood advises; free flushing with sterilised water or normal salt solution, at 105°—110° F., being subsequently carried out, according to some systematic method, and using Mr. Morse's return-tube irrigating nozzle. The peritoneum may then be rapidly sponged dry.

In cases where the extravasation is certainly limited such thorough measures need not be employed.

In certain cases a curious embarrassment of respiration has been noticed when the irrigation stream happened to be directed near the diaphragm, and in others spasmodic cough has been recorded.

Drainage.—This is another important question, about which there has been much discussion, and both successful and fatal cases can be cited on either side. No hard and fast rule can, I think, be laid down, and the operator must be guided in each case by general surgical principles. The post-mortem records of several cases where the fatal peritonitis was limited practically to the pelvis point to the advisability of placing a Keith's tube, introduced through a small incision above the pubes, in Douglas's pouch; and in cases where doubt is felt about the effectual closure of the perforation, or where there is any danger of septic matter lurking near the liver, a tube may be left in the main incision.

Any fluid collecting in these should be removed at intervals with a pipette. Mr. Barker has used successfully gauze drainage strips.

In two instances a drainage-tube has been passed through the loin near the kidney, and the patients have made good recoveries.

After-treatment.—This is conducted for the main part on the same lines as any abdominal case. The chief point of interest appears to be at what time it is advisable to commence feeding by the mouth. Most surgeons withhold everything except a little ice (*pace* Mr. Lawson 'Tait) or water, for one or two days at least, relying entirely on nutrient enemata, which are then gradually discontinued. Mr. Dent, of St. George's, assuming that "physiological rest" is what is aimed at, states that if there was much exhaustion he would not hesitate to give food by the mouth at once. "Physiological rest," he says, "is not so complete when all food is withheld as when small quantities of easily absorbable materials are given. . . . Physiological rest is best secured when the natural functions of the intestines are being discharged as nearly as may be in the normal manner." This is probably true, but I think the physiological action of the stomach may be regarded broadly as divisible into secreting, and peristaltic or mechanical, and surely it is the latter which should be in abeyance to ensure the firm adhesion of the opposed surfaces. This, I take it, is the object of those surgeons—and they represent the majority—who do not give food *per vias naturales* for some time after suture. Although M. Lucas Championnière advocates early massage in cases of fracture, would Mr. Dent advise a man with a broken femur to walk about gently during the first few days, in order that by discharging its natural functions as nearly as may be physiological rest for the limb might best be secured?

The use of opium is another point upon which different authorities join issue, and I can only say that it appears to be the custom to give small quantities for a short time, at any rate, after the operation.

Attention should of course be paid to the state of the bowels, especially as there is often a marked tendency to constipation. The large intestine should be cleared a day or so after the operation by an enema, though the administration of Carlsbad salts *per os*, both as an aperient and antacid, has been recommended.

Progress after operation.—The subsequent history of these cases will be watched with much interest. At present hardly time enough has elapsed to enable us to judge how far the gastric trouble of these patients is modified, but certainly in many of the successful cases the patients, free from any symptoms, have increased in weight and strength to a surprising extent. It appears probable that the complete rest and reduced and appropriate diet insisted on during convalescence rapidly promotes cicatrization of the ulcer, though two cases at least that have been reported had recurrent attacks of pain and dyspepsia within a few months of the operation. This might be advocated as a plea for excision of the ulcer as a means of radical cure, and time alone can show what is the best treatment.

Treatment other than operative.—From the foregoing considerations it will be seen that in any case where operative interference is impossible, or deemed inexpedient, the only chance for the patient consists in his being kept at absolute rest in the recumbent posture, and being on no account whatever allowed to get up. The patient should not be moved, if possible, from the place where the perforation occurred. Nothing at all must be given by mouth for days. In these instances morphia can be freely given at first; the subsequent treat-

ment must depend on the nature of the almost inevitable complications, which are dealt with in the various works on surgery.

Records of operations.—Last year Weir, in the *New York Medical News*, collected the published cases of laparotomy for perforated gastric ulcer, the list containing twenty-six recoveries. I have been able since then to find records of nineteen other successful gastric cases, and two duodenal, from British publications alone.

It is now only five years ago since Krieger published the first successful case of laparotomy for perforated gastric ulcer, so that the operation may be considered still in its infancy, but even now the swelling roll of successes seem to predict for it a great future.

In conclusion, my excuse for bringing forward so many post-mortem statistics—which are apt to be tedious—must be the importance of the subject. In Briston's words, "nothing short of a large number of autopsies can afford any valid basis for our conclusions" on this matter; and it is a matter which should concern every one of us. The competent general practitioner must be thoroughly conversant with the signs and symptoms of perforation, for in the vast majority of cases it is he who first sees the case, and upon the promptitude of his action depends the life of his patient. Recognising that delay and movement of the sufferer are the two factors which militate most strongly against the chances of recovery, if the help of an experienced surgeon cannot speedily be obtained, he must be prepared to operate himself; the indication for surgical interference is probably not less imperative than in a case of strangulated hernia.

Few would now, as Weir says, endorse Leube's opinion—expressed not so many years ago—that "when perforation occurs, that disastrous event in the course of gastric ulcer, the only treatment in most cases is to induce euthanasia." Mr. Knowsley Thornton has lately warned surgeons, now that sepsis can be avoided, against too readily opening the abdomen, drawing a vivid picture of the subsequent misery that may be caused by adhesions, traumatic hernie, and the like; and there are not wanting those who predict the advent of a time when the present period will be referred to, not altogether with admiration, as the "surgical age." Even should this be verified, and measures which are now considered justifiable discarded, yet must the operation for perforating ulcer of the stomach and duodenum remain as one of the most striking results of the development of abdominal surgery.

TABLE I.

SHOWING SITE OF 130 GASTRIC AND DUODENAL ULCERS.
(From the St. Bartholomew's Hospital Post-mortem Records.)

	Duodenum.		Yloric Third of Stomach.	Middle Third.	Cardiac.
	Males	22	39	12	17	7
Females	5	6	26	13	13

TABLE 2.

SHOWING AGE INCIDENCE IN 50 CASES OF PERFORATION.

AGE.	MALES.			FEMALES.	
	Duodenal.	Gastric.	Duodenal.	Duodenal.	Gastric.
15-24	3	1	—	—	8
25-34	4	1	—	—	3
35-44	2	5	—	—	2
45-54	2	6	2	—	2
55-65	1	6	—	—	1

There was one case of duodenal perforation in a boy aged 13.

Note on the Treatment of Small Psoas Abscesses.

By E. W. GURNEY MASTERMAN, F.R.C.S.,
Damascus.

AMID the many discussions at the present time on the treatment of psoas abscess, there is one old-fashioned one which seems more and more to be thrust into the background; I refer to that by *simple aseptic aspiration, repeated if necessary several times*. In looking

* On Ulcer of the Stomach, 1857.

through the text-books in my possession I find only Holmes' *System* in any way recommending it. The text-books of Erichsen, Ashby and Wright, and Owen say nothing in its favour. Treves (*Surgical Manual*) does not even mention it; Walsham speaks of aspiration favourably, but then his remarks are not confined to this class of abscess, but to chronic abscess in general. The latest discussion on the subject in the *Practitioner* for January, 1898, p. 78, and at the Abernethian Society (as reported in the *Hospital Journal*, January, 1898) contain no reference to any but what I may call heroic measures. Now I have recently had two successful cases which have led me to wonder whether my experience is unique, which is improbable, or whether hospital surgeons who take the lead in the literature of the disease, and therefore consider such radical measures as those proposed usually necessary. That such measures are necessary for the worst cases of course we all know. My two cases are as follows:

CASE 1.—S. S.—, a delicate boy of 8, came to me December 2nd, 1895, with lumbar caries. There were the characteristic symptoms, and over the upper lumbar spines there was slight deformity. At this time there was an indefinite fullness in the right inguinal region, leading to the suspicion of a commencing psoas abscess. He was ordered to rest entirely in bed, but followed directions very imperfectly. In the middle of March, 1896, he was found to have a fluctuating tumour in the right inguinal region. The pus was evidently deep; there was no redness. I aspirated him with an aseptic aspirating needle, and six ounces of thick creamy pus were let out. He was kept more or less in bed, but probably was always up directly his mother's back was turned. The pus re-accumulated, and on April 16th the abscess was again tapped, and another six ounces of thinner pus was let out. On May 22nd he was again tapped, and about four ounces of sero-purulent fluid were let out. I attended him until the middle of June of that year, but there being no re-accumulation he got up and returned to school. I have repeatedly seen him since, and up to the present time (February, 1898) there has been no re-accumulation; and further, all the symptoms in his back have gone. He goes to school, and joins the other boys in all their games.

CASE 2.—I.—, æt. 14, came to me March 3rd, 1897, with a psoas abscess presenting below Poupard's ligament. Fluctuation between the tumour above and that below the ligament was easily obtainable. There was considerable pain in the back, and slight projection of two spines at the junction of dorsal and lumbar vertebræ. Encouraged by Case 1, I thought I could try the same treatment; accordingly that day I tapped him, and about ten ounces of thick pus were let out. He remained lying in bed, but on March 16th the abscess was found to have recurred. I aspirated as before, but no pus came; accordingly on March 20th I came

prepared to open the abscess, but finding the contents appeared to be more fluid than on the 16th inst., I inserted the aspirating needle and drew off ten ounces of sero-pus. After apparently emptying the sac I applied a pad to the situation, and bandaged tightly. For the next month or so the boy kept quietly in bed, but during my temporary absence from my work he got up, and soon after returned to work. About three months ago I sent for him and carefully examined him. The abscess has entirely disappeared, and his back no longer pains him. Up to the present time—eleven months since the last aspiration—he has remained quite well.

Both these cases were treated with cod liver oil and "chemical food" while under my care.

To those who have experienced, as I have, the extreme difficulty of satisfactorily treating an *opened* psoas abscess among the poor in their homes, and the constant misery of a discharging sinus, any alternative to an open wound must be welcome; and I would suggest that for all cases where the abscess is moderate in size, unilateral, and still fairly deep, aspiration may with advantage be tried at least three or four times. Rest to the diseased back, and the administration of nutritives and tonics, should of course accompany the treatment. Strict attention to aseptics by preliminary thorough cleansing of the skin with soap and water and antiseptics, and of the needle in a spirit lamp, is of course an essential to success. For such cases as these I would prefer simple aspiration to any form of tapping followed by irrigation or injection of iodoform emulsion, although I should myself try this last before opening. For cases not cured this way such a treatment as described by Mr. Wallis (this *JOURNAL*, vol. v, p. 58) seems far preferable to simple inguinal incision.

Notes.

SIR THOMAS SMITH has been elected Consulting Surgeon and a Governor of the Hospital; Mr. Walsham has been appointed Surgeon, and the date for the election of an Assistant Surgeon has been fixed for Thursday, April 28th.

The polling in case of a contested election, as anticipated, will take place after the meeting of the Court of Governors to be held at 11 o'clock. Voting by ballot goes on until 3 o'clock, when the poll is closed, and the votes are counted at once by the treasurer and two scrutineers.

The alterations in the allotment of the wards following the change on the Staff have been but slight; Mr. Langton has exchanged Kenton for Henry, and Mr. Walsham's wards are Kenton, Lawrence, and half of Harley.

MR. WALSHAM'S operating days will be Tuesday in the

Old Theatre at 1.30, and Friday in the New Theatre at 2.30. Mr. Willeit has changed his operating day from Tuesday to Wednesday.

* * *

THE following rearrangements of the times for the Surgical Out-patient and special departments took effect on April 1st:

Mr. Cripps, Tuesdays and Fridays at 1.30.

Mr. Bruce Clarke, Mondays and Thursdays at 1.30.

Mr. Bowlby, Wednesday at 1.30, and Saturdays at 9.

Orthopaedic Department.—Mr. Bruce Clarke, Tuesdays at 1.30.

Throat Department.—Mr. Bowlby, Mondays and Thursdays at 2.

* * *

WE understand that in all probability Dr. Shore will resign his post of Warden of the College and Secretary to the School Committee at the close of the Summer Session. This, of course, does not mean that Dr. Shore severs his connection with the School, where he will still hold the post of Lecturer on Comparative Anatomy and Biology.

* * *

APOLOGIES are due to the successful candidate from Bart.'s at the last examination for the Army Medical Service—Mr. C. W. Mainprize. His name should have appeared in our last issue, but was omitted by some oversight.

* * *

DR. CHURCH and Sir Dyce Duckworth have become Consulting Physicians, and Sir Thomas Smith Consulting Surgeon to the Royal General Dispensary, Bartholomew Close.

* * *

DR. HORTON-SMITH has been appointed Assistant Demonstrator of Materia Medica and Practical Pharmacy.

* * *

MR. T. J. HORDER has been elected Assistant Demonstrator of Physiology in succession to Dr. Morrison, resigned.

* * *

THE Kirkes Scholarship and Gold Medal has been awarded to R. Hatfield.

* * *

THE Senior Scholarship has been awarded to R. C. Elmslie, and the Junior Scholarships as follows:—(1) E. C. Williams; (2) E. B. Smith.

* * *

THE Hichens Prize has been awarded to F. Gröne.

* * *

THE Harvey Prize has been awarded to S. G. Mostyn.

* * *

THE Foster (Senior Anatomy) Prize has been divided between R. C. Elmslie and H. Love, the Treasurer's (Junior Anatomy) Prize has been awarded to T. C. Neville.

* * *

WE are requested to call attention to a mistake in the

application on Horace Sawtell's behalf to the Governors of Epsom College. He has already polled 2750 votes, not 1750 as stated on the first issue of the cards, and in our pages last month.

* * *

WE have received from Mr. T. W. H. Garstang a copy of his Annual Report as Medical Officer of Health for the Rural Districts of Bucklow and Northwich, and the Urban Districts of Knutsford, Middlewich, Winsford, and Biddulph. We congratulate him on what appears to be an excellent and thorough piece of work.

* * *

IN Mr. A. S. West's admirable little edition of Earle's *Micro-cosmography*, recently published by the Pitt Press, we find very unflattering descriptions of the two branches of our profession. Of "a mere dull Physician" we read, "The best cure he has done is upon his own purse, which from a lean sickli-ness he hath made lusty and in flesh. . . . If he had been but a by-stander at some desperate recovery he is slandered with it, though he be guiltless; and this breeds his reputation and that his practice, for his skill is merely opinion." The surgeon does not get off much more lightly. "He differs," says Earle, "from a physician as a sore does from a disease; . . . the one distempers you within, the other blisters you without. . . . He is a reasonable cleanly man, considering the scabs he has to deal with."

* * *

THE editors of *Floreamus*, the newly established chronicle of University College, Sheffield, are to be congratulated on their enterprise. Strong and successful attempts are being made to develop a collegiate life and spirit there, and we are glad to note that two old Bart.'s men are prominently associated with the movement—Dr. Arthur Hall and Dr. Addison, the latter being one of the editors of the chronicle. Prof. G. C. Moore Smith has furnished a college song set to music by Dr. Coward, and admirably illustrated by Mr. Leonard Shields.

* * *

WHY should a medical officer of a charity be expected to write a report containing the expression of professional opinion, to further claims for damages, legal proceedings, and the like without a fee? At the Lambeth County Court, Judge Emden recently permitted himself to characterise the demand of a Guy's house surgeon for such a fee as "a miserable piece of extortion." Even a County Court Judge should know when he is talking undignified nonsense. Writing these reports is outside the sphere of medical charity, and should be remunerated like any other work involving time and professional reputation.

Amalgamated Clubs.

ASSOCIATION FOOTBALL CLUB.

ST. BART.'S v. ST. MARY'S.

THIS match, the first round in the Inter-Hospital Junior Cup competition, was decided on the Bart.'s ground, Winchmore Hill, on Thursday, February 3rd. The result was a victory for Bart.'s by 3 goals to 1, after a splendid match. Losing the toss, Bart.'s kicked off at 2.45, but were at once driven back, and for some few minutes Mary's kept up a hot attack and several times looked like scoring. The ball was then transferred to the other end of the ground, and after ten minutes' play some very pretty passing between Murdoch and O'Brien resulted in the latter getting through Mary's defence and scoring the first goal with a fine shot. From the fresh start Mary's pressed, their right wing doing excellent service, and once from a good centre by Pilkington they should certainly have scored, but the opportunity was lost; some good tackling and kicking by Turner then gave relief. In turn Bart.'s attacked, and Murdoch put in a good shot which was finely saved by Cheadle; a few minutes later Walker hit the cross-bar with a good shot. No further score was made before half-time, and Bart.'s crossed over with a lead of 1 goal to nil. With the wind now in their favour Bart.'s had the best of matters for some time, although they were not able to augment their score. Mary's then pressed, and had two corners in quick succession, which, however, did not avail them much. At length they were enabled to equalise by means of a penalty; Higginson took the kick, and after shooting straight into Harland, rushed the ball through before he could properly clear it. This had a great effect on the Bart.'s men, who at once attacked vigorously, and within two or three minutes O'Brien gave them the lead once more. Again Bart.'s pressed, and Miller made several good runs down the right wing, and from one of his centres Murdoch scored the third goal for us. After this Mary's had their turn in attacking, and had hard lines in not scoring. Once Skrimshire shot through the posts, but was off-side, while Killick put in a good shot, which was well cleared. Time was called without any further score, and Bart.'s were left the victors by 3 goals to 1, a result which was justified by their play, every man playing up hard and well. The combination of the forwards was especially good, and it was in this respect that Bart.'s were ahead of their rivals most particularly, while Turner was perhaps the best of a very good back division. It was not very satisfactory to see only five Bart.'s men watching the game, and it is to be hoped that more will manage to get away for the next match. Teams:—*Bart.'s.*—C. Harland (goal); C. H. Turner and Gordon-Smith (backs); N. E. Waterfield, N. G. Winder, and R. Aldersmith (half-backs); R. Walker and C. Murdoch (right wing); C. O'Brien (centre); F. E. Taylor and G. W. Miller (left wing). *Mary's.*—A. T. Cheadle (goal); W. F. Higginson and J. S. Webster (backs); W. E. Gribben, E. A. Price, and R. B. Wilbraham (half-backs); A. F. Pilkington and H. M. Brown (right wing); — Motta (centre); J. F. Skrimshire and C. Killick (left wing).

ST. BART.'S v. LONDON HOSPITAL.

THIS tie in the semi-final round of the Junior Hospital Cup was played at Winchmore Hill on Wednesday, February 23rd. A late start was made owing to several players missing the earlier train. A strong wind was blowing almost straight down the ground, which interfered with accurate passing, but a very keenly contested game resulted in a meritorious win for Bart.'s by 2 goals to nil. Losing the toss, Bart.'s kicked off, playing towards the pavilion end of the ground against the wind. For a short time Bart.'s pressed, but the wind was too much of a handicap, and London gradually worked the ball down to the other end and forced several corners, but nothing resulted. Once Grogono got it right away by himself, but ended a goodumble by a very tame shot. London still kept up a vigorous attack, and Harland had to save several shots, which he did well, and on two occasions especially distinguished himself by saving brilliantly. Dawson and Miller then relieved the pressure by several good runs down the right wing, and Murdoch and O'Brien also combined very well, and put in some very useful work. For the remainder of the first half London kept up a continuous attack, but their shooting was weak, while Gordon-Smith and Taylor played a very sound game at back, and half-time arrived without any score. In the second half, playing with the wind Bart.'s had much the best of the game, and kept the ball almost entirely in their opponents' half of the ground. Winder made a couple of good shots from

centre half, but both were saved. The first goal for Bart.'s was the result of a free kick given against Morris near the London goal, Murdoch putting the ball through almost immediately afterwards. Bart.'s scored again by Murdoch after a scrimmage in the London goal. London then attacked, and Grogono in the centre missed a very easy opening by a feeble shot, and Harland cleared well. The rest of the game was of a give and take character, in which nothing further was scored, leaving Bart.'s the victors by 2 goals to nil. With the wind so strong right down the ground the game was naturally confined chiefly to one end, and perhaps London had just as much the best of the game in the first half as Bart.'s had in the second, but the superior combination of the latter's forwards decided the game in their favour. For the winners, Harland was very good in goal, and Taylor and Gordon-Smith were very safe at back, while the forwards combined very well considering the wind and rain were against accurate play. Walker, Miller, and Murdoch were, perhaps, the best. For the losers, Brenan was the best of the back division, and Grogono was good until he got in front of goal.

Team.—C. Harland (goal); F. E. Taylor, Gordon-Smith (backs); N. E. Waterfield, M. G. Winder, and J. W. Illins (halves); T. Dawson and Miller (right wing); C. O'Brien (centre); C. Murdoch and R. Walker (left wing).

JUNIOR CUP TIE—FINAL COMPETITION.

ST. BARTHOLOMEW'S v. ST. THOMAS'S.

THIS tie was decided at Chiswick Park on Wednesday, March 16th, before a fair number of spectators. Sanson kicked off at 2.45 for St. Thomas's. Bart.'s immediately pressed and looked like scoring, but Miller was given off-side. A run by Thomas's was stopped by the Bart.'s backs, who returned in fine style to Miller, who ran down, and passing to O'Brien, the latter sent in a good shot which was just put over the goal. A few seconds later Dawson scored the first point for Bart.'s from a *milée* in front of goal (1-0). On resuming Bart.'s again took possession, and from a good centre by Miller, O'Brien placed in the net (2-0). After a few minutes' play, Murdoch took a shot at goal, and the ball rebounding, O'Brien put it into the net (3-0). Further good play by Miller and O'Brien enabled the latter to put on two further points for St. Bart.'s, the score at half-time being 5-0.

On resuming play Bart.'s did all the pressing, O'Brien, Walker, and Dawson all adding points, the former 2. The score at time was 9-0, ending a not uninteresting but entirely one-sided game. St. Bartholomew's Hospital now holds the Junior Cup for 1898. Teams:—*St. Bart.'s.*—C. Harland (goal); C. H. Goodman, H. Gordon-Smith (backs); R. Aldersmith, F. E. Taylor, and N. Waterfield (half-backs); G. W. Miller, C. Murdoch, C. O'Brien, T. Dawson, R. Walker (forwards). *St. Thomas's.*—L. Gibson (goal); C. Powell and R. Ravallette (backs); N. Egger, A. N. Wright, S. Battle (half-backs); R. Downs, R. Walker, F. E. Sanson, W. Unsworth, W. R. Bateman (forwards).

INTER-HOSPITAL SENIOR CUP—SEMI-FINAL.

ST. BART.'S v. LONDON HOSPITAL.

PLAYED at Leyton, Essex County Ground, Wednesday, 16th February. Bart.'s winning the toss, decided to defend the pavilion end first. London kicked off, and after a very temporary advantage to us, Upward soon turned the tide in their favour by a fast run and then a capital centre, which, however, Walker failed to utilise, and the ensuing scrimmage round our goal was well repulsed by Orton and Butcher. Once more we attacked, and close to their goal a foul having been given against London, from the free kick Whitaker only just failed to score with a very neat shot. Linnel, after some very pretty play, got the ball down our end and put in a hard shot well saved by Butcher. Again Butcher cleared another hard shot, passing out to Talbot, who took it away. But London continued to press hard, certainly having the best of this half of the game, although Orton, Whitaker, and Bostock, showing some fine play for our defence, did their utmost to avert their rushes, and feed our forwards. London's combination told at length, J. F. Walker scoring with a most difficult shot, and soon after from a good corner kick by Fletcher, Linnel scored a second. Little more occurred up to half-time, and thus the score stood Bart.'s 0, London 2.

Though against the wind and sun, Bart.'s showed considerably better form this half. Talbot almost at once got away with one of his dashing runs, succeeded in a dangerous centre, which although taken up well by our forwards was saved by Enthoven; London, who were keeping finely together, once more worked the play to our goal, but again were unable to baffle Butcher's defence. After some rather dangerous work at our end, Ward and Marrett with a smart

run made a good attempt to score, which resulted in a corner. Bostock judging a difficult wind well put in a good kick, but we were unable to record a goal, and London's forwards were at once away with the ball and down our end, finishing with a hard shot, well saved once more by Butcher. Talbot soon getting the ball succeeded in passing their backs, and was on the point of shooting, when "off-side" was given, a decision which certainly evoked much surprise. From the free kick Walker made a very neat dribble, but ended in a weak shot. No more scoring was recorded. Bart's all this half-time had been playing up with an energy worthy of a better result, conspicuously Whitaker, who at half-back (Watson having taken his place at white) kept his men well together. Several times it seemed as if we must score, especially from some excellent centres against the wind by Ward. Although we pressed London hard with energetic endeavours to equalise matters all the latter half, and especially the last twenty minutes, we had to retire at time with the two goals gained by London in the first half as the result of the game.

For London, Green, H. J. Walker, Linnell, and Thwaites were perhaps the pick of a very good team, and for us Talbot, Ward, Whitaker, and Bostock were always working hard, whilst Butcher's "saves" were cheered by Bart's and London men alike. Teams:

London Hospital.—L. F. Enthoven (goal); P. A. Green, F. P. Hilliard (backs); H. Fletcher, H. Thwaites (Capt.), D. Whittington (half-backs); J. F. Walker, H. J. Walker, G. P. Wilson, J. E. Linnell, H. A. Upward (forwards).

Bart's.—H. H. Butcher (goal); L. E. Whitaker (Capt.), L. Orton (backs); E. H. Scholefield, C. G. Watson, A. H. Bostock (half-backs); J. H. Talbot, J. A. Willett, A. E. Thomas, V. G. Ward, H. N. Marrett (forwards).

HOCKEY.

ST. BART'S v. BLACKHEATH PROPRIETARY SCHOOL.
Played at Blackheath on February 19th.

Result, won by 6-1.

We started up a very steep hill, and for some time had a difficulty in clearing a goal. After about ten minutes' play Imthurn took the ball up the left wing and passed to Mayo, who scored with a splendid shot. The School almost immediately equalised, but before half-time Edwards gave us the lead again. In the second half we had most of the game. Muirhead put through from a bully, and Hallows scored with a good shot, whilst Mayo beat the goal-keeper twice. The result was most satisfactory, as the School had beaten us earlier in the season by 6-0.

Team.—D. Jeaffreson, G. B. Nicholson (backs); P. B. Grenfell, M. O. Boyd, F. H. Parker (halves); A. H. Muirhead, R. Imthurn, H. R. Mayo, A. Hallows, A. B. Edwards (forwards). Referee, E. Spry.

ST. BART'S v. ROYAL OBSERVATORY.
Played at Winchmore Hill on February 26th.

Result, won by 2-1.

This was a most even game throughout. H. Mayo scored for us in the first half from a free hit. Play was then very exciting until ten minutes from time, when Nixon hit a very clever goal.

Team.—D. Jeaffreson, G. B. Nicholson, F. H. Parker (backs); M. O. Boyd, T. A. Mayo, P. B. Grenfell (halves); A. H. Muirhead, J. A. Nixon, H. R. Mayo, A. Hallows, A. B. Edwards (forwards).

ST. BART'S v. ILFORD PARK.
Played at Ilford on March 17th.

Result, draw, 1-1.

A most even game all through. Nixon scored the goal for us, and Flint hit the post with a hard shot. We played one short.

Team.—D. Jeaffreson, G. B. Nicholson (backs); F. Shout, M. O. Boyd, F. H. Parker (halves); A. H. Muirhead, H. Flint, J. A. Nixon, A. Hallows, A. B. Edwards (forwards).

SHOOTING CLUB.

At the Annual General Meeting the following officers were elected for 1898:

President.—H. J. Waring, Esq.
Vice-Presidents.—Howard Marsh, Esq., Henry G. Read, Esq., Dr. Edkins, E. W. Miles, Esq.
Captain and Secretary.—Walton R. Read.
Committee.—C. R. Brown, A. C. Brown, F. E. Taylor, Goodall, A. E. Lister, Edwards.
Shooting will commence the first Thursday in May at Ilford

range, and a target will be open for practice from 2 to 6 p.m. A Prize meeting will be held during the first week in July to compete for prizes offered by several of the leading instrument makers; also to decide the team to represent the Hospital at Bisley.

All members who intend shooting this season are requested to send in their names to the secretary or any of the committee.

The following matches have been arranged:
May 28th.—St. Paul's Bisley.
June 1st.—Tonbridge School Tonbridge.
" 2nd.—Whitgift School Woldingham.
" 8th.—St. Mary's Hospital Ilford.
" 16th.—St. Thomas's Hospital Ilford.
" 18th.—R.I.E.C. Cooper's Hill Staines.
Several others will be arranged later on.

Ibernetian Society.

THE last ordinary meeting of the Society was held on Thursday, March 10th, 1898, Mr. Hussey, President, in the Chair.

Mr. Drury showed an interesting case of infantile hemiplegia. Mr. Horder showed two similar cases, one probably due to a cerebral tumour, the other coming on during an attack of whooping-cough. Mr. J. P. Maxwell then read a most interesting and exhaustive paper on pyuria. He reviewed the causes and symptoms, with illustrations drawn from his clinical experience. He then discoursed upon the differential diagnosis; this, as he showed, was always difficult, and sometimes almost impossible. Most of Mr. Maxwell's paper was based upon his own observation and experience, making it one of great practical value.

Thursday, March 17th, was the date fixed for the poll for the election of officers, which was open from 12.30 to 1.20, and at 8 p.m. About 200 availed themselves of the opportunity of voting in the morning, and a few in the evening, when the Annual General Meeting was held, Mr. Langton Brown, President, in the chair.

A few members having recorded their votes, Mr. Gilbert Smith and Mr. Eddison were appointed as scrutineers. The Report of the Committee was then read and confirmed, of which the following is a copy.

"In presenting the Annual Report your Committee beg to congratulate the Society upon the success of the meetings held during the past winter. The average attendance at the ordinary meetings, which last session had reached 38, was well maintained, and a slight increase (to 39.5) can be recorded.

There were three sessional addresses; that in the summer delivered by Dr. Norman Moore, who took as his subject "The Deaths of the Kings of England," that in October by Mr. Langton, who gave an account of "Some of those after whom the Wards are named," and that in January by Dr. Lovell Drage, who discoursed upon "The Coroner's Court." At the seventeen ordinary meetings of the Society papers were read by two members of the teaching staff, by the Treasurer's Research Student, by five present and six former members of the junior staff. Three evenings were devoted to discussions, clinical and pathological; to the last of these Dr. Kanthack came from Cambridge; he said he hoped to be a more frequent visitor in the future. This hope your Committee re-echoes, whilst thanking him cordially for the great interest he has always shown in the Society. Four of the papers read have been published in the Hospital JOURNAL.

Lastly, the financial position of the Society has improved, owing to (1) an increase of £30 in the subscriptions, and (2) a decrease in the number of papers and journals taken in the reading rooms, a decrease only sanctioned by your committee with great regret, and after an exhaustive inquiry. A reference to the balance-sheet appended will show that the Society is now free of debt, and has a small balance in hand."

Following the reading of the report, the President made an affecting farewell speech on behalf of the outgoing officers of the Society, to whom a vote of thanks was unanimously carried. The meeting then adjourned until the result of the poll should be announced. At 9 p.m. the scrutineers made known the result of the poll, and the President declared the following gentlemen duly elected.

Presidents.—Mr. T. J. Horder and Mr. H. Thurstfield.
Treasurer.—Mr. A. Willett.
Vice-Presidents.—Mr. E. S. E. Hewer, Mr. R. de S. Stawell.
Hon. Secretaries.—Mr. Rowe, Mr. Everington.
Additional Committeemen.—Mr. W. M. Fletcher, Mr. F. Gröne.

BALANCE-SHEET, 1897-98.

Dr.	£	s.	d.	Cr.	£	s.	d.
Balance—				Debts outstanding,			
in hand	£1	0	5	May, 1897—			
in bank	6	15	11	Adlard	9	14	2
				1897-98.			
Dividends	7	16	4	Refreshments	16	8	8
Subscriptions	101	17	0	Attendance	10	17	0
Paper sales	4	7	11½	Petty expenses,			
				stamps, &c.	0	4	7
				Cases at clinical even-			
				ings	1	0	6
				Evans & Witt (papers)	49	11	10½
				Adlard (printing)	5	10	0
				Pentland (journals)	7	11	0
				Balance—			
				in hand	£0	8	3½
				in bank	16	17	0¼
					17	5	4
					£118	3	7½

Presentation to Mr. Berry.

THE Anatomical Theatre was crowded even to the upper gallery on Thursday, March 24th, the occasion of the presentation of the Testimonial and Picture to Mr. James Berry on his resignation of the post of Surgical Registrar. The proceedings were marked throughout by great enthusiasm. Mr. Lance, as Senior House Surgeon, took the chair at 5 o'clock, and among those present were Sir Thomas Smith, Dr. Church, Mr. Langton, Mr. Marsh, Dr. Calvert, Mr. Waring, Dr. Shore, Dr. Andrews, Dr. Fletcher, Mr. D'Arcy Power, Mr. Edgar Willett, Mr. Eccles, Rev. W. Ostle, Rev. R. Adams, and the Steward, Mr. Watkins. The Matron, most of the Sisters, and a representative number of the Nursing Staff were also present. Letters of regret for unavoidable absence were received from Mr. Willett, Mr. Walsham, and Dr. West.

The entrance of Mr. Berry was the signal for a regular ovation, and when the applause had subsided Mr. Lance, in the course of an appropriate speech, disclaimed any intention of introducing Mr. Berry to the audience, to whom he was so well known and by whom he was so much appreciated. He called upon Dr. Meakin to make the presentation.

Dr. Meakin said that when the committee who had organised the presentation wrote to him some weeks ago, asking him to voice the feeling of the Hospital towards Mr. Berry, he felt that he was the recipient of an exceedingly high honour.

He took it that his province was to explain to Mr. Berry the reasons which had induced the men to give a testimonial, and he hoped that he would succeed in demonstrating to Mr. Berry that the picture was far more than a mere present. It was a representation of our high appreciation of Mr. Berry's consistent kindness and unselfishness, and of his ability as a Teacher of Surgery. He would like Mr. Berry first to understand that our action in this matter was as free from any taint of hysteria or groundless emotion as it was possible for any action to be. It was characteristic of this Hospital that, given a certain course of action was recognised to be the right one, that course of action was pursued with a very large amount of vigour and a very small amount of fuss. This presentation was no exception. We had decided that it was our duty to mark our feeling of gratitude towards Mr. Berry, and we were now engaged in doing it.

Dr. Meakin remembered Mr. Berry first as a Demonstrator of Anatomy, and even in those days Mr. Berry's ability as a teacher evoked every-day comment. Since then Mr. Berry's popularity as a teacher had not only shown no diminution, but had steadily increased.

One of the details of our School of which we were most proud was our surgical teaching. This we legitimately regarded as second to none in the whole world. Hence any man joining the ranks of the teachers of surgery at Bart's was judged by a very high standard and subjected to very severe criticism. How had Mr. Berry come through this ordeal? He had not only maintained the high standard

of our teaching, but had actually brought credit to it. (The audience endorsed this opinion vigorously.) But it was not merely because Mr. Berry could give lucid explanations of abstruse surgery that we were giving him this picture; it was because, in addition to his ability as a teacher, Mr. Berry was always ready to help any man in the kindest possible way.

Mr. Berry's power of getting the maximum amount of work out of a slack dresser was an art in itself. Mr. Berry would take him by the arm, walk him round the square, and the man became transformed—at least for three days—into the keenest possible dresser.

House surgeons, too, owed much to Mr. Berry's kindness and tact, and would always feel that much of the pleasure of their retrospect was due to their good fortune in having so agreeable a surgical registrar to work with during their term of office.

Before presenting the picture Dr. Meakin asked the men to stand up and give three cheers for Mr. Berry, and this they did with considerable enthusiasm.

Dr. Meakin then made the presentation, asking Mr. Berry to remember that the picture represented a very strong feeling of goodwill towards him in the Hospital, and very sincere wishes for his success in all that he undertook. He concluded by saying that we should not trouble to wish Mr. Berry success were we confident that truth always lay in the words "Palmam qui meruit ferat."

His speech throughout was punctuated by applause, and the concluding phrase was the signal for a demonstration of the heartiest kind. The wording of the address was as follows: "This testimonial, together with a painting of St. Bartholomew's the Great, was presented to James Berry, Esq., F.R.C.S., by the undersigned on the occasion of his resigning the Surgical Registrarship of the Hospital, in token of the esteem in which he is held by those who have had the privilege of working under him; their admiration for the excellence of his work, and their sincere wishes for the success of his future career." The testimonial, which was illuminated on vellum, was signed by over eighty past and present house surgeons and dressers.

When Mr. Berry rose to reply the applause became deafening, and it was not for some minutes that he could begin his speech. He then said:

Mr. Chairman, Dr. Meakin, Fellow-students, Ladies and Gentlemen,—It is impossible for me to express adequately in words my gratitude for the kindly feeling which has prompted so many of you to give me this magnificent testimonial, and I am deeply grateful to you also for coming here in such numbers to give me so cordial a reception. I need not say that I shall ever value your gift most highly, and for several reasons. I value it in the first place as a most beautiful work of art. I am sure that you will all agree with me in saying that the artist, Miss Sprague, whom I am glad to see present here to-day, has succeeded in producing an excellent picture, and one of which she may justly be proud. I value it further because the subject of it will ever serve to remind me of our Hospital, so intimately associated with it during many ages when the Priory and the Hospital were one and the same institution. Most of all, however, do I value it as evidence of the kindly feeling that exists, that always has existed, and I hope always will exist between the students and teachers of this Hospital and School. My thoughts carry me back to a certain day early in October, now nearly twenty years ago, when I, a second year's student, sat in the Anatomical Theatre and listened to Mr. Howard Marsh's first introductory lecture on anatomy. And well do I remember a certain passage in that lecture which made a great impression upon me at the time, and which I have never forgotten. Speaking to the new students about their future career in the Hospital, and the relations of students to teachers, he said, "Gentlemen, you will find that this Medical School is one large brotherhood; some of us are big brothers, and some of us are little brothers, but we are all brothers." Now that is just as true to-day as it was then; we are all brothers. Carrying the simile a little further, I would say that the old monks who in the twelfth century wandered about among the grand old Norman arches that you see in that picture were brothers in name; we who now wander about the wards of this great Hospital are brothers in spirit.

Looking back upon the five years during which I have been your Surgical Registrar, the chief thing that strikes me is the harmonious way in which the house surgeons, dressers, and registrar have all worked together for the common good, the welfare and prosperity of our Hospital. I will not pretend that the work I have had to do has not been hard work; but if there has been hard work for me, there has also been hard, perhaps harder, hard work for you, and I do not think that hard work does any of us any harm. It has for me been pleasant work and useful work. It has taught me a great

deal of surgery. When I reflect that in these five years I have had the opportunity of seeing some twenty thousand surgical cases, I cannot help feeling that the experience thus obtained will be of enormous value to me in my future career as a surgeon.

My work has been pleasant in another way; it has brought me into contact with a very large number of people with whom it has been my duty and privilege to work, and it has made me many kind friends. Now I may divide these people into five classes, and with your permission I will say a few words to you about each of them.

First, there are the lay officers of the Hospital, from whom I have always received the utmost kindness and consideration; and I should like especially to refer to the Steward and his assistants, upon whose shoulders has fallen much of the work that has lightened the clerical labours of the Registrar. Then there are the members of the medical and surgical staff of the Hospital, but it is not necessary that I should say much to you on this subject. I have, however, a very warm appreciation of the uniform kindness and courtesy extended to me by them; and especially would I like to dwell upon the freedom with which they have allowed me to examine the cases in their wards, and to teach upon them. Now there are some hospitals that I could name in which the Registrar is looked upon with a certain degree of suspicion; he is expected to register, to look after the notes, and he has to be careful what he says to others about the cases that he sees. Now here, I am glad to say, there is nothing of this sort; the registrar is given a very free hand to do as he thinks fit, and he is even allowed, as you know, to take in the wards a special class in surgery for the final Fellowship examination. For these privileges, believe me, I am deeply grateful to the staff.

I come now to the house surgeons, and especially to the junior house surgeons, and I suppose that the word which is at this moment uppermost in the minds of all of us is *abstracts*. Well, I have much sympathy with the house surgeons; when I was a junior house surgeon I had no abstracts to write; there were no such things in those days. But now the unfortunate junior house surgeon, when his hard day's work in the wards is over, has to sit down and write abstracts, and he knows that there is a troublesome person in the shape of a registrar, who will plague him unmercifully until he has written them.

But he always does write them, and he usually writes them exceedingly well. I do not say that he is not occasionally a day or two—I might even say a week or two—behindhand with them, but he always writes them, and I am consequently grateful to him.

And now I come to my good friends the dressers, and what shall I say of them? Well, I will say this, that they have always been very kind to me, that they have always tried to save me as much trouble as possible; they have always written their notes, and the notes have generally been very good notes. They may perhaps think that at times I have been strict with them, at times even severe. I have even known a soft-hearted nurse say to me, "Really, Mr. Berry, I think you are very hard on poor Mr. So-and-so about his notes." But I hope they will acknowledge that in my dealings with them I have always tried to be just.

Sometimes a new dresser—he was generally a very new dresser—resented the interference of the Registrar, but his resentment seldom lasted long.

I remember a case in point. A certain dresser had just come on, and had been allotted a case in Coborn; when in the course of my ordinary rounds I visited this ward, I found no notes. A simple means of communication, with which you are all familiar, produced an interview with the dresser. I found him defiant; his duty, he said, was to dress, and not to take notes, and he was not going to take notes for me or anybody else. We retired into a quiet corner of the ward, and held a short conversation. Next day there were still no notes; a second interview took place, in which I had to point out that certain awful consequences would follow if he persisted in disregarding my wishes. On the following day I found that the notes had been written, and what is more, that dresser ever afterwards took much pains with his notes, so much so that two or three months later his house surgeon, who was, I believe, ignorant of the above facts, remarked to me one day what a good dresser Mr. So-and-so was.

It was my duty, as you know, to read all notes, and at times this work was somewhat monotonous. But often the notes were very interesting, and at times even amusing. The new dressers, when they first came on, and had to use words with which they were not yet familiar, would occasionally exhibit remarkable eccentricities in spelling. There is a certain pathological fluid which had often to be mentioned by name, and I have frequently known a new dresser

write the word "puiss," a common form of bandage would sometimes be spelt "spiker," and I remember one dresser, of a sorrowful, I might say funeral turn of mind, who for several weeks would persist in writing the name of a well-known member of our surgical staff as "Mr. Crypts."

Sometimes I could detect a vein of poetry in the mind of a dresser. There was a certain butcher who, in order to enter the army, wished to be operated upon for a varicocele. The dresser to whom the case was allotted wrote as follows: "John B—, æt. 20, being anxious to exchange the blue smock of a butcher for the red coat of a soldier, entered the wards of St. Bartholomew's Hospital, and received his first wound in front at the hands of Sir Thomas Smith." On another occasion an element of pathos would be introduced into a note. A boy had been operated upon for cleft palate, and the dresser wrote a very good note of the operation. Next day he noted that the boy was very restless and unruly. A whole week then passed and no note was made. Then came this brief and pathetic note: "The boy has paid the penalty of his rashness." Not a word more! It was left to the imagination of the reader to discover whether the unfortunate boy had died, or whether, as was really the case, the operation would have completely broken down.

At times, as you know, it was my unpleasant duty to tear up notes that had not been written in a manner of which I approved. I have always held it to be important, to ensure uniformity of the system of registration, that the notes should be taken in a systematic manner, according to certain rules that I laid down. If a dresser did not follow these instructions, well, I simply tore up his notes, and he wrote them again. I have said that I always tried to be just, but occasionally I failed. I have been known sometimes, from carelessness or inadvertence, to tear up a note when I need not have done so. I think I generally heard about the matter pretty quickly from the aggrieved dresser. On such occasions I naturally apologised, and offered to write the note out again myself. I think it is saying a good deal for the kindly feeling of the dressers towards me when I tell you that I do not remember a single occasion on which my offer was accepted.

I have been telling you tales about the dressers. I think I ought now to tell you a story against myself. On entering a surgical ward one day I found a new patient evidently very ill, and suffering from pneumonia or pleurisy, or something of that kind, besides the surgical lesion for which she had been admitted. I read the notes, and to my surprise found that although they were good notes, very good notes, yet they had been written in a very strange manner, and not according to the rules which I had laid down for note taking in the surgical wards. I ought perhaps to explain that the system of note-taking adopted on the surgical side of the Hospital is, for obvious reasons, somewhat different from that of the medical side.

I made some comment on a blue flag, tore up the notes, and passed on, thinking no more of the matter until next day, when I was suddenly assailed by an indignant house physician, who asked me what the dickens I meant by tearing up his notes. It was then that I realised the enormity of the offence I had committed! The case, although remaining in a surgical ward, had been transferred to the care of a physician, and it was the senior house physician who had himself written the notes, as is the custom in the medical wards. There was nothing to be done but to apologise,—in fact, I simply grovelled in apologies. He very magnanimously forgave me, and would not even allow me to rewrite the notes for him.

The fifth and last class that I have to mention is that of the nurses, and among them especially the sisters. No one who has not actually done the work of a registrar can realise adequately to what extent he is dependent upon the good-will of the sisters. They can make his work in the wards pleasant, or they can make it very unpleasant for him. Now I am glad to have this opportunity of saying publicly how deep is the debt of gratitude that is due to the sisters. One and all have striven loyally to help me in my work, and to make it pleasant for me.

There are certain official duties of the sister towards the Registrar, chiefly connected with cards and numbers. I speak not of these; of course they were well done. But there are a hundred other ways in which a sister can help the Registrar, and it is for this unofficial help that I am particularly grateful. Many a time, for instance, has a sister told me some little point of interest about a case that I should otherwise have overlooked. Many a time has a sister taken the trouble to let me know that at a certain time I could get an opportunity of examining some case in which I was particularly interested. And I am afraid that the sisters have often had much to put up with from me. My best friends must admit that I am apt to be untidy, that I am often clumsy, that I am sometimes inconsiderate. Nevertheless the sisters have borne with me in a way that has earned my gratitude. Never

shall I forget the mild reproachful look that a certain sister cast at me when I let a drop of ink fall on one of her snow-white counterpanes. On one occasion I caught my sleeve in an inkstand, and upset the whole thing to the floor at the very feet of another sister! I verily believe that if she had not been standing exactly between me and the doorway I should have sought refuge in flight. But a gentle "Oh, Mr. Berry!" was the only punishment that I received. Some sisters are known to be very particular about their polished floors; I believe I have been known to spill drops of water on such a floor.

Talking of polished floors, there was a certain ward in which the polish and slipperiness was usually so great, that it proved a temptation to the dressers and others of us to indulge certain boyish propensities. So the sister laid down a rule that no one, save only the Senior Surgeon, should be allowed to slide on her floor! Here was what I considered a grievance; but I do not mind telling you, now that I am no longer Registrar, and do not have to meet her daily, that I did sometimes indulge in a little slide surreptitiously, when her back was safely turned.

And now, in conclusion, I must again thank you all very warmly for the kindness you have shown and the honour you have done me. That picture shall hang in my dining-room, and it will ever serve to remind me of five very pleasant years, and of numerous excellent friends.

The proceedings then closed with a vote of thanks to the chairman. Appealing shouts for a speech from Sir Thomas Smith were unavailing, and the meeting reluctantly dispersed. Miss Sprague's picture was shown at the private Exhibition of the Ridley Art Club, to which, through Mr. Berry's kindness, the subscribers were invited. It has since been sent to the Royal Academy.

Junior Staff Appointments.

The following appointments have been made, dating from April 1st:

HOUSE PHYSICIAN TO—		SENIOR.		JUNIOR.	
<i>Dr. Church</i>	A. Heath, M.B.(Lond.), F.R.C.S.	E. F. Paigraev, M.R.C.S., L.R.C.P.			
<i>Dr. Gee</i>	W. Langdon Brown, M.A., M.B., D.C.(Cantab.).	J. H. Thursfield, M.A., M.B., B.Ch.(Oxon.), M.R.C.S., L.R.C.P.			
<i>Sir Dyce Duckworth</i> ...	C. F. Lillie, M.A., M.B., B.C., D.P.H.(Cantab.), M.R.C.S., L.R.C.P.	R. H. Brembridge, B.A.(Oxon.), B.Sc.(Lond.), M.R.C.S., L.R.C.P.			
<i>Dr. Hensley</i>	D. H. F. Cowin, M.R.C.S., L.R.C.P.	S. Bousfield, B.A.(Cantab.), M.R.C.S., L.R.C.P.			
<i>Dr. Brunton</i>	S. F. Smith, M.B.(Lond.), M.R.C.S., L.R.C.P.	J. E. Sandilands, B.A.(Cantab.), M.R.C.S., L.R.C.P.			

HOUSE SURGEON TO—		L. B. Rawling, B.A., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P.	
<i>Mr. Willett</i>	A. B. Tucker, M.B.(Lond.), M.R.C.S., L.R.C.P.	J. L. Maxwell, M.B.(Lond.), M.R.C.S., L.R.C.P.	
<i>Mr. Langton</i>	R. de S. Stawell, B.A., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P.	R. D. Parker, B.A., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P.	
<i>Mr. Marsh</i>	M. W. Coleman, M.B.(Lond.), M.R.C.S., L.R.C.P.	H. Mundy, M.R.C.S., L.R.C.P.	
<i>Mr. Butlin</i>	A. R. J. Douglas, M.B., B.S.(Lond.), M.R.C.S., L.R.C.P.	S. P. Huggins, M.B.(Lond.), M.R.C.S., L.R.C.P.	
<i>Mr. Walsham</i>	Gilbert Smith, M.B.(Dunelm.), M.R.C.S., L.R.C.P.		

OPHTHALMIC HOUSE SURGEON.—H. W. Henshaw, M.R.C.S., L.R.C.P.
 INTERN MIDWIFERY ASSISTANT.—H. Williamson, B.A.(Cantab.), M.R.C.S., L.R.C.P.
 EXTERN MIDWIFERY ASSISTANT.—E. G. D. Drury, M.B., B.S.(Lond.), M.R.C.S., L.R.C.P.
 RESIDENT ASSISTANT ANAESTHETISTS.—SENIOR.—B. Collyer, M.D.(Lond.), M.R.C.S., L.R.C.P.
 JUNIOR.—A. Granville, M.R.C.S., L.R.C.P.

Appointments.

BELLEN, F. M.B., B.C.(Cantab.), F.R.C.S., appointed Resident Surgical Officer to the Hull Royal Infirmary.
 CHATER, J. S., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed Senior House Surgeon to the Royal Surrey Hospital, Guildford.
 COLLINGRIDGE, W. M.D., M.R.C.S., D.P.H., has been re-appointed Medical Officer of Health by the London Port Sanitary Authority.
 COLLYER, B. J., M.R.C.S., L.R.C.P., appointed Assistant House Physician to the Birmingham General Hospital.
 DIXSON, CHAS., M.D.(Dunelm.), M.R.C.S., appointed Honorary Anaesthetist to the Brentford Cottage Hospital and Dispensary.
 GEACH, R. N., M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Royal Surrey Hospital, Guildford.
 GILMOUR, R. W., M.B., B.S.(Durb.), M.R.C.S., L.R.C.P., appointed Fifth Medical Officer and Pathologist to the Wadsley Asylum.
 HEWES, E. S. E., M.R.C.S., L.R.C.P., appointed Junior House Surgeon at the Gloucester Infirmary and Eye Institution.
 MOLESWORTH, T. H., M.B., B.C.(Cantab.), appointed Assistant House Surgeon to the Stockport Infirmary.
 PRICE, F. E., M.R.C.S., M.R.C.P., appointed Medical Officer to the Great Indian Peninsula Railway.
 ROWE, W. T., M.R.C.S., L.R.C.P., appointed House Surgeon to the West London Hospital.
 VERDON-ROE, S. M.B., B.C.(Cantab.), appointed House Physician to the Radcliffe Infirmary, Oxford.
 WARD, J. P. STEPHENS, M.R.C.S., L.R.C.P., appointed Physician's Assistant to the Plymouth Public Dispensary.
 WRANGHAM, W. G., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed House Physician to the Leicester General Infirmary.

Obituary.

CHARLES WEST, M.D., F.R.C.P.

A LINK with the past was snapped on March 19th, when Dr. Charles West died at the ripe age of eighty-one. Sixty-five years have passed since he joined his Hospital as a student. Gaining prizes during his course here, he then studied in succession at the Universities of Bonn, Paris, and Berlin, of which last he became an M.D. After an unsuccessful venture in private practice he returned to this Hospital and devoted himself to clinical research under Dr. Latham. He soon attracted attention by his description of the epidemic of typhus (1837-8), which those associated with this Hospital had an unique opportunity of observing.

But it was in the two departments of Midwifery and Diseases of Children that he became best known. His earliest work on the latter was done as Physician to the Infirmary for Children in Waterloo Road, a post to which

he was elected in 1842. His interest in Midwifery dated from 1835, when he gained a prize at Bonn for his essay on "The Female Pelvis and its Influence on Parturition." Ten years later he was chosen as Lecturer on Midwifery at Middlesex Hospital, and in 1846 he became Physician-Accoucheur there. In 1848 he was appointed Junior Lecturer on Midwifery at this Hospital with Dr. Rigby. He conducted the Gynæcological Department here, which was then a purely out-patient practice. No beds were devoted to these cases in the wards till the following year, when Dr. West was allowed to admit cases under Mr. Stanley's care to the back ward of Harley. In 1851 the front half of Martha was made into a gynæcological ward, and though Dr. West had charge of the patients he was never a medical officer of the Hospital. At that time there were practically no operations; a pelvic abscess might be opened, or an "ovarian dropsy" tapped in the ward, but that was all. In 1861 he resigned his position here, and was succeeded by Dr. Greenhalgh, whom as well as his distinguished successor, Dr. Matthews Duncan, he has long outlived.

If one seeks for a monument of Charles West, let him turn to the Hospital for Sick Children in Great Ormond Street. His work on the diseases of children has run through seven editions, and has been translated into many tongues, including Arabic; his lectures on the diseases of women formed for many years a standard work. But long after these are forgotten he will be remembered as the founder of that hospital. He was "ever a fighter" with his colleagues and equals, but to children he showed his best and most gentle side. His skill in the use of toys aided his skill in diagnosis; he could quiet a child that remained fractious in any other hands. It was early impressed upon him that the accommodation for sick children in London was ridiculously inadequate; with the result that by his efforts a house in Great Ormond Street, once the residence of the famous Dr. Mead, formed the nucleus of the present imposing building about the year 1851. For twenty-four years he was the Senior Physician of this Hospital. Never to the last day of his life did he lose interest in its welfare.

At the College of Physicians he became in succession Member (1842), Fellow (1848), Croonian Lecturer (1852), Censor (1863), and Senior Censor (1890). He was also President of the Royal Medical and Chirurgical and Obstetrical Societies, Lumleian Lecturer, and Harveian orator.

Space would fail to tell of all his literary activity, which was incessant. As late as last year he published a work on *The Profession of Medicine: its Study and Practice, Duties and Rewards*. This was really an expansion of his opening address at this Hospital forty-seven years before—a fact which in itself testifies to the tenacity of his views.

From 1880 he was obliged to winter on the Riviera, but till 1886 he remained in active practice, not finally relinquishing work till about 1890. While at Cannes this winter

his health began to fail fast, and he longed to return home. He actually attempted the journey, but could get no further than Paris, where he died peacefully on March 19th.

Correspondence.

To the Editor of the St. Bartholomew's Hospital Journal.

DEAR SIR,—In the review of Mr. Waring's *Manual of Operative Surgery*, the reviewer ventures to say that he has a regard for the old simple method of division and excision of the sac of a hernia in the radical operation, with a view to its permanent cure. Will you permit me to say that, as Mr. Waring did me the honour to allow me to read through the proof sheets of his work, I was particularly pleased to find that he did not even mention the inguino-scrotal incision. There is a growing feeling that this is altogether a bad one, and it is never taught, so far as I know, in the Operative Surgery Class at St. Bartholomew's. The excision of the sac is, moreover, an unnecessary proceeding in so far as its scrotal portion is concerned, though its complete ablation in the whole length of its inguinal part is essential. This can, however, only be satisfactorily accomplished through an inguinal incision. I regret, seeing that I read over the proof, that an error is present in the name of the inventor of the quilted intestinal suture. It should of course be "Halsted." I notice your reviewer has by a printer's error given two names wrongly, viz.—Kacher and Munnell.

I am, Sir, yours, &c.,

March 21st, 1898.

W. McADAM ECCLES.

[By some unfortunate oversight, a line in our review of Mr. Waring's book in our last number has been allowed to convey a meaning exactly the converse of that intended.]

In the sentence "most of the figures are very good: some strike us as unnecessary, a quite *unusual* feature in books on the subject," the word *quite* should be replaced by *not*. As examples of what we mean by "unnecessary," we would point to such diagrams as those of incisions for ligation of some of the vessels and nerves, for we think a description thereof sufficient; and if the description be not sufficient we hardly think a diagram helps very much. Again, diagrams of dissecting forceps, needles, and ordinary pressure forceps are not necessary for an advanced work.

Nevertheless we realize these are purely matters of opinion, and our criticism, of rather good-natured grumble, in no wise detracts from the very great merit which we see in Mr. Waring's book.

Other mistakes in our article, such as the errors in proper names, are too obvious to need more than a mention of their humble recognition by us.

"*Quæ ledunt oculos festinas demere.*"—Horace.]

Births.

MILSOME.—On March 8th, at Holmcoft, Chertsey, the wife of Henry B. Millsome, M.A., M.B., B.C. (Cantab.), of a daughter.

MURIEL.—On March 30th, at 42, St. Giles's Street, Norwich, the wife of Cecil Jeffery Muriel, of a daughter.

Death.

WEST.—On March 19th, Charles West, M.D., Corresponding Member of the Académie de Médecine of Paris, Founder of the Children's Hospital, Great Ormond Street, aged 81.

ACKNOWLEDGMENTS.—*Schedulæ for Plant Description*, by John Wishart (Edinburgh, E. & S. Livingstone—price 6d.), *The Lancet*, *Gay's Hospital Gazette*, *The Stereoscope*, *Magazine of the London (Royal Free Hospital) School of Medicine for Women*, *The Student*, *The Nursing Record*, *The Gynoscope*, *St. Thomas's Hospital Gazette*, *L'Echo Médical*, *St. Mary's Hospital Gazette*, *The Hospital*.

St. Bartholomew's Hospital



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[PRICE SIXPENCE.]

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C., BEFORE THE 1ST OF EVERY MONTH.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial or otherwise, relative to Advertisements ONLY, should be addressed to J. H. BOOTY, Advertising Agent, 29, Wood Lane, Uxbridge Road, W.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d., or carriage paid 2s. 3d.—cover included.

St. Bartholomew's Hospital Journal.

MAY 14th, 1898

"Æquum memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

The Treatment of Pneumothorax.

By SAMUEL WEST, M.D., F.R.C.P.



One can foresee the occurrence of pneumothorax. All that can be done by way of prevention is to caution those whose lungs are diseased against any violent muscular or respiratory effort. When pneumothorax has occurred the mischief is achieved. All that treatment can then do is (1) to relieve the symptoms which have been produced, (2) to prevent as far as possible the complications which may arise, or (3) if they arise to deal with them as circumstances require.

The gravity of pneumothorax is not due to the entrance of air into the pleura merely, for if the air be pure—*i. e.* not infected—it may be completely absorbed, and no inflammation of the pleura follow. It depends in the early stage upon the sudden embarrassment of the respiration and circulation consequent on the collapse of the lungs, and in the later stages upon the inflammatory conditions which follow. The treatment may be considered in relation to these two stages, the early and the late.

I. THE EARLY STAGE.—The prominent symptoms of the early stage are shock, pain and distress, and dyspnoea.

The shock is often profound. It must be treated on general principles, and for this purpose the rapidly diffusible stimulants are the most useful, *e. g.* sal volatile, ether, alcohol, and strychnia, given by the mouth, or if necessary by subcutaneous injection.

The pain and nervous excitement should be allayed by sedatives, of which opium and morphia are the most trustworthy. These also may be given by the mouth or *sub cutem*, according to the requirements of the case. The bromides, chloral, cannabis indica, &c., are too slow in their action to be of use where the symptoms are severe.

It is dyspnoea which is the chief symptom, and this is usually extreme.

In the cases in which dyspnoea is absent, slight, or at any rate not extreme, the treatment should be general, and the less active the better. The patient should be kept quiet in bed, talking should be prevented, and all muscular effort forbidden. The minor symptoms that present themselves should be relieved by appropriate means, *e. g.* restlessness and excitement by sedatives, such as bromides and chloral, and pain by counter-irritation, local anodynes, or even a few leeches applied to the seat of pain. Great care should be taken to avoid chill, and the case should be carefully watched—first for the signs of congestion of the opposite lung, and secondly for the development of fluid on the side affected.

If the dyspnoea is considerable something must be done, and that without delay. The dyspnoea, as already explained, is partly mechanical and partly physiological, *i. e.* mechanical

so far as the pneumothorax leads to the complete collapse of the one lung and the partial collapse of the other; physiological on account of the embarrassment of the circulation and respiration which this sudden collapse produces. The collapse of the lungs, though the result of their own elastic retractility, is rendered more complete by the increased intra-pleural pressure on expiration. These mechanical factors in the dyspnoea could, in part at any rate, be removed if an exit for the air were provided from the pleura.

If, then, the dyspnoea be urgent the side should be tapped, and the tension thus relieved. For this purpose an aspirator is not necessary or desirable, for, the expiratory pressure being in excess of that of the atmosphere, the air will readily escape of itself during expiration; while if an aspirator be used in the early stages of pneumothorax air will be sucked in afresh from the lung through the original perforation, and the hole be thus kept open. This would be a direct disadvantage, for it is good that the lung should remain collapsed for a while, so as to give the perforation time to close and heal.

There are objections also to the use of a simple cannula, for air will then enter on inspiration as well as escape on expiration, and the risk of some infective substance being introduced from outside into the pleura will be increased. To obviate this objection various forms of valvular cannulae have been proposed, but there is always difficulty in keeping these valvular cannulae clean. The syphon is the safest and best arrangement, *i. e.* a cannula with a tube attached, the end of which is placed under water. In this way a water-valve is formed, which, while permitting the free exit of air, prevents its return.

Paracentesis almost always gives great and immediate relief, though the relief may be unfortunately only of short duration. If the air re-accumulates, and the symptoms return, another paracentesis will be required, and perhaps even a third, fourth, or more.

For such cases as these, where repeated paracentesis is necessary, it has been proposed to insert a cannula, generally a valved cannula, and to leave it in the side. If such a method were employed it would be best to use the syphon arrangement already recommended under water. I think, however, that to leave a cannula in the chest is bad practice, for it is difficult to keep such cannulae clean, and suppuration almost always occurs in the puncture round the tube if it is left in the lung. The cannula then becomes loose, and when it is removed the orifice may not close. An external opening may become necessary; but if so it should be made deliberately after careful consideration, and not permitted to develop accidentally. If repeated paracentesis is necessary, it is best to tap in the usual way and choose a different place each time. The strictest antiseptic precautions should always be taken, for they are, if possible, even more important in paracentesis for pneumothorax than for

pleuritic effusion, inasmuch as the result of purulent infection is so much more serious.

In the cases which require repeated paracentesis free incision of the side may seem indicated.

Free incision would almost certainly be followed by supuration, and the case be converted into one of pyopneumothorax, or rather of empyema. If all cases of pneumothorax ended, as a matter of course, in purulent effusion, this would make no difference, and free incision at once might be the simplest and best method of treatment. We know, however, that in some cases of pneumothorax no effusion takes place at all, and that in the rest the effusion is often serous. As the ultimate prognosis of pneumothorax depends largely upon the nature of the effusion, it follows that free incision should be avoided if possible. I should, however, not hesitate to recommend incision if I thought it necessary, rather than run the risk of prolonged dyspnoea. Fortunately, the cases in which the question would arise are likely to be few.

If the dyspnoea increases in spite of repeated paracentesis, it must depend upon other conditions, which are physiological rather than mechanical, *viz.* upon the congestion of the opposite lung, and the consequent embarrassment of the heart.

To relieve these symptoms dry cups may be applied to the interscapular spaces and to the whole back, and this often gives marked relief; or the blood may be detained in the extremities—for example, by an elastic band tied round one or both thighs, or by the use of Junod's boot.

In some cases wet cups may be employed instead of dry; but if there is thought to be an indication for bleeding, the desired result will be better obtained by free venesection. Indeed, we have in certain cases of pneumothorax the very indication for bleeding, *viz.* a right ventricle which is becoming paralysed from sudden over-distension.

Where the pneumothorax occurs in a person whose previous health has not been impaired to any great extent, there are none of the general contra-indications which in other cases may render it of doubtful expediency. If bleeding be decided on, a large vein should be opened, and several ounces of blood rapidly removed. I have no doubt that life might be sometimes saved by timely venesection, and it is certain that bleeding is not as much employed in these urgent cases as it ought to be.

At the same time, whether bleeding be performed or not, the general strength should be maintained in every way, and the heart stimulated by alcohol, strophanthus, citrate of caffeine, or even digitalis, while the general excitement and distress should be allayed by the cautious use of opium or morphia.

II. THE LATER STAGES.—When the urgency of the symptoms has passed off the treatment must be expectant. What is to be done chiefly depends upon whether effusion follows or not.

If no fluid form, no local treatment will be required; the air will be in time completely absorbed, the lung re-expand, and recovery in all probability take place unless phthisis or some other grave disease prevent it.

If effusion develop, the treatment to be adopted will depend upon the nature of the fluid, and this must be determined by the needle. In performing exploratory puncture the greatest care must be taken to avoid infection, for this is even more important, if that be possible, in the case of pneumothorax than with ordinary pleurisy. The effusions must be treated on the usual general lines, the only question to be considered being how far these general principles should be modified in the presence of pneumothorax.

1. *Where the effusion is serous.*—Serous effusions in pneumothorax may spontaneously disappear, and they frequently do if they are only in small amount. In pneumothorax, however, the conditions are not so favorable for absorption as they are with serous pleurisy, for there is no doubt that the lungs themselves play a very important part in the removal of fluid from the pleural cavity, and where they are so completely collapsed they cannot take their usual share in the process.

Where spontaneous recovery occurs the fluid may be first absorbed and air alone remain, or the air may be absorbed first and its place be taken by fluid.

Even a serous effusion should not be left too long, and I think if, after two or three weeks, the fluid still persists, it would be better drawn off by paracentesis, preferably by syphonage. On inserting the needle care must be taken that the mouth of the cannula is below the level of the fluid, otherwise nothing but air will be withdrawn and the fluid will remain behind. If the mouth of the cannula be below the level of the fluid, expiration is usually quite sufficient to fill the tube, and no suction is necessary. If, however, the syphon is not filled in this way, a syringe might be used for the purpose, or the tubes may be filled before the needle is inserted. In most cases this syphon apparatus is all that is wanted, and answers every purpose. The aspirator is a dangerous instrument to use in pneumothorax unless it be provided with a manometer to show the pressure which is being employed, and this should on no account exceed, even if it should be allowed to reach, eighteen to twenty-four inches of water. Aspirators are rarely provided with such a pressure gauge. If by using too high pressure the lung is ruptured afresh great mischief may be produced, for if (as is possible) the lung has partly re-expanded, it will become collapsed again, and thus progress be delayed; and, besides this, there is the danger that with the air some infective material may be sucked into the pleura and the effusion made purulent.

Great delicacy and caution are necessary in operating upon the pleura in a case of pneumothorax. Even in most skillful hands the aspirator may do mischief, and under ordinary

circumstances it should not be used. To employ an aspirator with the object of sucking the lung out and helping it to expand is vicious in theory and mischievous in practice.

In all cases of tapping the pleura in pneumothorax, whether for the purposes of exploration or paracentesis, especially, of course, in the latter, care should be taken to prevent the air passing along the puncture to the subcutaneous tissue. With this object, as the needle is withdrawn the finger should be firmly pressed over the puncture, and a piece of sticking-plaster, made sticky in the spirit lamp, should be quickly applied immediately over the puncture, and then a pad strapped firmly to the side so as to exercise pressure over it. Where the patient coughs much, as frequently happens after puncture of the pleura, air is likely to be driven along the puncture and to reach the subcutaneous tissue, and in this way extensive surgical emphysema may develop. With the air, especially where the effusion is purulent, it is not unlikely that infective substances will be carried with it and excite suppuration in the puncture, and even beneath the skin, and thus in the end lead to an external opening. The risk of this can be greatly diminished by firm pressure applied after the puncture in the way described.

2. *Where the effusion is purulent.*—The general principles of treatment of pus in the pleura will of course apply. The only question is how far they may require to be modified in the presence of pneumothorax. As in the case of empyema, three courses only are open—it may be left alone, it may be tapped, or incised.

(a) *If left alone.*—Although in empyema cases occur in which the pus is spontaneously absorbed, and thus cure effected, I do not know any instance of the kind in pneumothorax. If pyopneumothorax be left alone the pus will ultimately make its way out, either through the lungs or externally. If through the lung, spontaneous cure is extremely unlikely, though it may perhaps occur, as in one of the cases which I have reported. If discharge takes place externally the wound will probably have to be extended, and the result will be the same as if an incision had been deliberately made, but with this disadvantage, that a greater length of time will have elapsed, and the lung, therefore, be in a less favorable condition for expansion.

As a rule, with pyopneumothorax a condition of well-marked hectic develops, and if nothing is done the patient dies ere long exhausted, and that, too, even if the pus make its way out internally or externally. It follows, therefore, that to leave a case of pyopneumothorax alone gives the patient but little chance of recovery.

(b) *Paracentesis.*—Temporary relief can, of course, be given by tapping, but I do not know of any case of pyopneumothorax in which paracentesis has led to recovery. The operation is certainly not devoid of risk, for the pus is, as a rule, too thick to be removed by syphonage. Suction, therefore, has to be used, and there is considerable risk in sucking the pus out the lung will be ruptured afresh, and

thus much mischief be done. Besides this, the coughing which follows the operation often forces air, and with it some pus, along the track of the needle. Thus suppuration and sometimes a considerable subcutaneous abscess forms, which has to be freely incised, and in this way an indirect communication with the chest is made; or the suppuration may take place beneath the periosteum, and in this a considerable portion of one or two ribs necrose.

In one case of this kind nearly six inches of the sixth rib necrosed, and had to be removed in two successive operations. Although there was not at first a direct communication with the pleura, the abscess ultimately burst in both directions, so that when the rib was removed a very large opening into the chest was left.

If paracentesis be performed, it must be remembered that the object is to remove the pus and not the air, and therefore the mouth of the cannula must be directed to the lower part of the chest, where the pus lies, otherwise air only will escape and no pus be obtained. Also care must be taken after paracentesis that pads should be applied and firm pressure made over the puncture, to obviate as far as possible the objections mentioned, and in order to keep the puncture as small as possible only a small or medium-sized cannula should be selected.

(c) *Incision.*—From what has preceded it would seem that the only thing to be done for pyopneumothorax is to treat it like an empyema and incise early, and that is the conclusion which I think ought to be drawn. At the same time most authors express an opinion adverse to an incision in pyopneumothorax.

The published statistics of pyopneumothorax are very much more unfavorable than those of empyema. For this there must be some good reason. It may be that (1) the disease is more serious in itself, (2) that the lung is more likely to be gravely involved, or (3) lastly, that the methods of treatment differ.

As regards the gravity of the affection itself, one cannot compare all cases of pyopneumothorax with all cases of empyema, for the great majority of cases of pneumothorax have their origin in phthisis, while the majority of the cases of empyema do not; and we know that empyema occurring in the course of phthisis and due to it is of very much graver prognosis than when it is due to other causes. That the presence of air in the pleura has really nothing to do with the results is shown by the fact that in tapping empyemata air may escape into the pleura, or even the lung itself be ruptured; yet this air is in the majority of cases soon absorbed, and the case runs its ordinary course. It may be thought that the perforation in the lung, being as a rule from a tubercular cavity, will not itself heal and thus the conditions will be much more unfavorable than in empyema. Yet this is not altogether correct, for in many cases the perforation does heal even in a tubercular cavity, while in some of the cases of pyopneumothorax in which post mortem

the hole is found patent, the hole found may be not the original perforation, but one which the pus has subsequently made for itself in finding its way out through the lung.

Putting aside, then, the fact that the lung is more likely to be diseased in pyopneumothorax than it is in empyema, there seems no other reason why the air and pus in the pleura should not be treated in the same way in the two cases, so that the more unfavorable results in pyopneumothorax must, in part at any rate, be attributed to the difference in treatment of the two affections. The difference in the statistics of pyopneumothorax and of empyema would not be so great if we compared pyopneumothorax not with empyemata operated on early, but with those which were neglected, *i. e.* not operated on at all or only after long delay. The statistics of pneumothorax are drawn from old sources, and there are no recent statistics of pneumothorax treated by early incision, and I venture to think that if there were the results would be very different.

The reasons given for the postponement of incision or even of paracentesis by older writers are chiefly two:—first, that by the compression which the pneumothorax exercises upon the lung on the affected side the progress of tubercle in it is checked; and secondly, that the tubercular mischief often makes rapid mischief when the lung re-expands.

These *a priori* objections are not absolutely correct, and at the most express only a part of the truth; and against them must be set the facts that tubercle *may* certainly progress in a collapsed lung, for recent tubercles may be found in lungs which have been long collapsed, and that tuberculosis does not by any means always rapidly progress in an expanded lung after its having been collapsed, as is shown in the case of serous pleuritis and in empyemata; while, on the other hand, tuberculosis may develop and progress rapidly in the opposite lung after, and apparently in consequence of, the collapse of the lung on the affected side.

The same arguments were once urged against the tapping of serous effusions which were thought to be tubercular, as well as against incision in empyema, and with as little reason. They were overruled by experience. It follows, therefore, that these *a priori* objections should not be allowed to weigh much against the treatment of pyopneumothorax by incision.

At the present time pneumothorax is very rarely deliberately incised. If an incision is made, it is generally either because the pus has spontaneously discharged itself externally, and the wound requires extension, or because after paracentesis the puncture has suppurated.

My own feeling is strongly in favour of the treatment of pyopneumothorax by incision. We have no statistics as yet which can guide us in the matter, and we must make them for ourselves, but I believe it is quite justifiable to make a forward step in this direction.

In a case of pneumothorax, as soon as the effusion which

has formed is known to be purulent, the question of its removal should be considered. As long as it is merely sero-purulent, and especially if it will flow through a syphon tube, the effect of paracentesis may be tried. If, however, the pus be thick and viscid, and requires an aspirator with more or less suction, the question of incision should be raised. There need be no great hurry in deciding, for it is well to give the perforation in the lung time to close and heal firmly. At the same time it would be wrong to postpone incision too long. There will be room, no doubt, for considerable judgment to be exercised in the choice of the exact time for operation, which would have to be determined partly by the length of time which had elapsed since the pneumothorax, as well as by the general condition of the patient and the state of the lungs.

The operation should be conducted in the usual way, and there is but one question which remains for consideration, *viz.* the propriety of washing the side out. In many of these cases which are tubercular the pus is not only thick, but seems to contain a large amount of mucus, and is very viscid. I think it well to wash out the pleura freely at the time of operation, and to repeat it from time to time if it seems necessary. I have done this in several cases, the result has always been satisfactory, and I have never seen any harm come from it.

In many cases pyopneumothorax has come under my treatment only after some time had elapsed from the commencement, and I therefore had but little opportunity of trying what I am here advocating, *viz.* early incision; but I believe that not only is it the right line of practice, but that it will soon come to be recognised as such, and become the rule of practice. If a pneumothorax is left for months there is the same prospect, neither more nor less, of curing it by incision as in a case of empyema left untreated for as long a time, and therefore, if incision is to be made in a case of pyopneumothorax, it should not be postponed too long.

I gave an account recently of a case (*Brit. Med. Journ.*, November 27th, 1897) of pyopneumothorax of several months' duration, in which incision, late as it was, resulted in recovery. The patient was a man *æt.* 34. He came under my care five months after the onset of pneumothorax, and was found to have a fetid purulent effusion. The side was then incised, but it was not found necessary to excise a piece of rib. The lung rapidly expanded, and on the day following the operation was in contact with the chest walls in great part. The cavity was washed out, and the discharge rapidly lost its fetor. The patient was practically well, except for the track in which the drainage-tube lay, within a week from the operation. He gained flesh and strength rapidly. The sinus was difficult to close, and chiefly on account of the interest of the case the patient was kept in hospital. By October the tube was out and the patient well. He has been at work for several months, and looks and feels perfectly well. Just lately a

little pus has been discharged from the front of the old incision six months after the sinus had closed; but there is nothing in the condition of the patient, nor in the physical signs, to point to anything more than a small collection of pus in the track of the old sinus. A fine and short tube has been inserted again; the discharge is but little, and no doubt soon this sinus will close again.

Some Rectal Diseases

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II. HÆMORRHOIDS.

HÆMORRHOIDS are so common, that from a medical point of view they are too often treated with the contempt which we are told is bred of undue familiarity. The consequence is that a large amount of discomfort, pain, and even misery is unnecessarily borne by those suffering from this complaint, who regard an attack of piles on much the same lines as a cold in the head, and it is allowed to "run its course."

Even when advice is sought, the treatment ordered is too often of a most perfunctory character, and more often than not a rectal examination is conspicuous by its absence. That this should be the case is indeed a pity, for when taken in hand early a great deal can be done in the way of palliative treatment, and if operative measures are necessary the sooner they are undertaken the better.

The causes of hæmorrhoids have grown in number to quite a long list, but before considering these it will be as well to briefly discuss a few anatomical facts with regard to the rectum and anus.

The rectum is supplied by the superior hæmorrhoidal artery, and both the gut and the vessel develop together; the method of entrance of the vessel to the submucous tissue and its distribution are facts well known, and easily read about in any anatomical book, and it will be remembered that the vessels run *between* the muscular and mucous coats, and end *just about* the internal sphincter.

The venous return commences over the internal sphincter by a series of pouch-like dilatations, forming what is known as the hæmorrhoidal plexus; this gradually forms into the returning veins, which are without valves, and these ultimately empty into the portal system through the inferior mesenteric veins.

The middle hæmorrhoidal supplies the periproctal tissues. The inferior hæmorrhoidal is distributed to the anus; the venous return from these vessels opens into the systemic circulation by means of the internal iliac veins.

There is *not free anastomosis* between these vessels, as

has been so frequently taught. This can be easily proved by injecting the various vessels with different coloured glycerines. To further emphasise this point let us briefly consider some points in the development of this part of the body.

The gut (with the superior mesenteric artery) comes down to the anal region, and ends as a cul-de-sac. The proctodeum (with the two other arteries) ultimately opens into the gut. This opening is generally at the anterior surface of the bowel, and a pouch (post-anal) remains posteriorly which gradually becomes obliterated. In the case of an imperforate anus the circulation of these two parts is quite distinct, and when the fusion is effected there is very little alteration in this arrangement. Bearing these facts in mind it will be quite obvious that hæmorrhoids must necessarily depend on different causes according to their situation.

Hæmorrhoids have been divided into external and internal varieties, and a third kind has been described as interno-external—a bad term, but still descriptive of the variety. I propose to discuss the first two separately, and then to say a few words about the third form.

External hæmorrhoids are due initially to a varicose condition of the anal veins, but they do not as a rule give rise to any symptoms until from some cause or another they become inflamed, when they usually become thrombotic. The erect position, constipation, and straining, are causes producing varicosity, especially the two latter.

When a thrombus is formed, the veins and surrounding tissues become hard, tense, and painful; the pain is of a throbbing character, and the patient is unable to stand or sit with any comfort. Unless relieved, this pain continues for many days, and ends in suppuration, or the pile may become inflamed and superficially ulcerated. If neither of these contingencies occurs, the clot is gradually absorbed, the infiltrated tissues subside, and a tag is left which, as a rule, causes no further discomfort.

A certain amount of relief may be obtained by hot baths and fomentations in cases of thrombosis—but the only real relief, and the proper treatment, is to incise the vein over the thrombus, and turn out the clot or clots. Both before and after the parts are washed in 1-2000 perchloride, and some cotton wool soaked in the solution is placed on the opened vein and kept in place by a pad and T-bandage. Everything will be healed, and all swelling have subsided, in a few days. If suppuration has occurred, a free vent must be given to the pus, and fomentations applied. In the case of an inflamed and ulcerated condition the part should be fomented until the inflammation has subsided, and then the pile should be removed.

A certain number of patients suffering from this malady will not permit any "cutting operation," and from one circumstance or another cannot foment the parts. For such as these the local application of belladonna and glycerine with a little opium added is beneficial.

Another useful application is the following:

℞ Bismuth Subnitrat.	5ij
Cocain. Hydrochlor.)	gr. iv
<i>Vel</i>	
Eucain. Hydrochlor.)	
Pulv. Calomelan.	gr. x
Lanolin	ad ʒj
Ft. Ung.	

Patients who have had one attack of external piles should be warned not to sit on cold or damp places, especially after taking exercise. Stimulants should be taken with great discretion, and malt liquors should be forbidden. The bowels should not be allowed to become constipated, and local washing with cold water and soap after the bowels have acted should be made a strong point. It seems to me waste of time to give a lot of directions how to avoid piles. Complaints of this nature are only interesting, among the laity, to those who suffer from them.

It is a common belief that newspaper has some special pile-producing product of its own. I cannot find that there is any ground for it, as far as the composition of printer's ink is concerned. The paper is usually harsh, and may wound the muco-cutaneous surface, and thus expose the wounded spot to the possibility of infection from the bowel excretion. Beyond this, I think, there is no reason for this old-fashioned superstition.

Excision of external piles.—It is rarely necessary to do any extensive operation for external hæmorrhoids, nor indeed is it advisable. Operations for these, if injudiciously carried out, are apt to lead to bad anal strictures. Unless the hæmorrhoids are more or less pedunculated, I make it a rule *not* to ligature the hæmorrhoids, but to cut as much as is necessary away with pile scissors, and then to pick up any bleeding points and tie them separately. By this means the minimum of contraction is obtained, and the tendency to any stricture done away with.

Internal hæmorrhoids.—The initial cause of internal hæmorrhoids is, I have no doubt, an anatomical one. This is apparently still a matter of dispute, into which I cannot enter here, but I will briefly state what I believe to be the facts.

1. The rectum has a powerful arterial supply.
2. The veins commence in a series of small pouches.
3. They have no valves.
4. The tissues in which they lie are little or no support to them.
5. The blood returns through the portal system, which is a sluggish stream comparatively, and hepatic congestions render the return often still more slow.

Bearing these facts in mind, it is easy to understand that *mechanical* causes, as constipation, constant straining, long standing, or sedentary occupations, the pressure of tumours, such as a pregnant or misplaced uterus, or a stone in the bladder, may produce the condition of hæmorrhoids.

Again, excesses of eating and drinking and constant purgation are common exciting causes of hæmorrhoids.

Three varieties of hæmorrhoids are usually described.

1. The columnar or arterial.
2. The pyramidal or venous.
3. The nevoid or capillary.

I have placed them in the order of what I believe to be their frequency.

The *columnar* consist of the hypertrophied longitudinal folds of mucous membrane (pillars of Glisson). The swellings commence between the sphincters, and the folds can be traced some way up the rectum. They contain branches of the superior hæmorrhoidal artery, which are sometimes of quite a large size.

The *pyramidal* variety are felt inside the sphincter as soft globose swellings, which disappear under pressure, to return immediately the pressure is discontinued. They consist mainly of veins covered by thinned mucous membrane. The hæmorrhage from this variety is not so frequent as in the other two, but the amount lost at a time is often rather alarming, owing to the perforation of a vein.

The *nevoid* variety, when existing alone, is often almost impossible to detect with the finger; but when seen by means of a speculum, the bright red, slightly elevated swelling, which bleeds readily, cannot be mistaken.

The main symptom of internal hæmorrhoids is loss of blood, which although usually only slight each time, soon blanches the patient, producing often a state of quite advanced anaemia. This condition of anaemia occurs more frequently in young women, who do not pay the same attention to small blood losses that male patients do.

Mucous discharge is generally present to a greater or less extent. *Pain* is not often complained of, unless, as occurs at times, there is some ulceration of or between the hæmorrhoids. When the hæmorrhoids are prolapsed and strangulated, or inflamed, the amount of suffering may be very great.

Patients who are run down from loss of blood, which may have been going on for many years, are apt to complain of various pains in the loins, back, head, and other parts of the body.

The complications which may exist with hæmorrhoids have given rise to a great deal of discussion, and a corresponding variety of opinions have been given, which cannot be discussed in this paper.

Prolapse is of frequent occurrence, and happens, as a rule, only in hæmorrhoids of some standing. The patients are usually able to return them after the bowels have acted, and at first they remain in the bowel until the next evacuation. Later on they come down when the patient walks about or does any active work, and are a constant distress.

Prolapsed piles may become strangulated and gangrene may supervene, owing to the action of the sphincter.

Acute inflammation of a septic variety may also happen when prolapse occurs. The treatment in these cases is to return the hæmorrhoids under an anæsthetic, and then apply fomentations, the sphincter being well stretched at the time, or if necessary divided.

If the piles are only strangulated and not gangrenous or acutely inflamed, they may be removed at once; at least, this is the practice with which I agree, although others do not.

Uterine disorders are common complications, and often primary factors of hæmorrhoids in women. These should be treated first, before any operation is done for the hæmorrhoids.

Hepatic troubles are also commonly associated with hæmorrhoids, and great caution should be used as to the choice of cases. An operation may be the reverse of beneficial.

Hæmorrhoids may be complicated with fissure, fistula, or small polypi; the latter are by no means infrequent, and act as a source of irritation to the bowel.

When operating on hæmorrhoids and a fistula, if the fistula is cut through first, care must be taken if the piles are ligatured not to take up too much mucous membrane, otherwise complete temporary occlusion of the lumen of the bowel may occur, and possibly some permanent stricture.

The *treatment* of internal hæmorrhoids is either palliative or radical.

The *palliative measures* are both constitutional and local. Constitutionally, diet is the main thing to pay attention to. Every one eats too much (if they are able to do so), and the commonest cause of hæmorrhoids is excessive eating; but it is a most difficult thing to get a patient to act in moderation in this respect, or even with a certain amount of judgment.

The same remarks apply to alcohol, more especially to all forms of malt liquor, which are the worst things possible for people suffering from the malady under discussion.

If necessary, one of the multitude of well-known laxatives should be taken from time to time, but drastic purgatives are to be avoided.

When there is much hæmorrhage, or indeed in all cases where the patient complains mainly of loss of blood, I can strongly recommend the internal administration of the tincture of hamamelis in ten-minim doses, three or four times a day. This, combined with the local application of hazelin ointment, has been found to be of the greatest benefit. Subchloride of mercury ointment is another very favourite local application at St. Mark's Hospital. These ointments should be applied at night-time, and both before and after the bowels act. But after an evacuation it is *most important* that the parts should be thoroughly washed with cold water, more particularly if the piles prolapse to any extent. If the above treatment is carried out, much relief will be obtained in a number of cases.

Another form of palliative treatment which is useful is the injection of each pile with about five minims of a 10 per cent. solution of carbolic acid. In prolapsed *reducible* piles it acts well.

The pain caused by the injection is slight and transient, and sometimes one injection is sufficient. In a few days the piles shrink up and hardly prolapse at all, and the relief to the patient is marked. It must not be considered a "cure;" it is only a palliative measure, but the effect may last for some years. I have had patients come to me who say that they want the process repeated, as they have had relief for three, four, even five years, after one or two injections.

This method of treatment has been strongly denounced by one or two American surgeons, and Allingham does not regard it favourably.

My own experience is stated above, and my colleague, Mr. Swinford Edwards, has used it some scores of times with advantage to the patient, and in no instance has there been any harm done. Unless some extraordinary recklessness is associated with this simple treatment, I cannot imagine that such shocking results as have been recorded are possible.

Operative Measures.

It is not proposed to discuss methods which are practically not done now, for the removal of hæmorrhoids.

The methods of operation now carried out are—1. Clamp or cautery operation. 2. Crushing operation. 3. Whitehead's operation. 4. Ligature.

Three main considerations must be borne in mind when advocating any operation:—(a) The immediate safety. (b) The ultimate result. (c) The comfort of the patient.

It will, perhaps, be best to briefly describe these operations, and then to see how far they fulfil these considerations.

In the *clamp and cautery operation*, each pile is clamped at its base and then removed by scissors, the cut margin being seared by a cautery at a dull red heat. This operation is said to be less painful than ligature, and this was its main recommendation; but the amount of destruction of tissue, ultimate possible stricture, and great risk of secondary hæmorrhage more than counterbalance the avowed painlessness, which is not always borne out in actual practice.

The *crushing operation*, as carried out according to Allingham's method, and with the instrument which bears his name, is in certain picked cases a good method. The main recommendation here is the small amount of pain experienced after the operation in the majority of cases. It would, however, be unwise to definitely state beforehand that no pain would be felt after the operation.

In this operation the sphincters are gradually but thoroughly dilated, and the pile is pulled through the clamp, which is screwed up slowly as tightly as possible;

the clamp is left on about a minute, the pile is cut off, and then the clamp is slowly unscrewed and the tissues are released. Care must be taken not to take up too much tissue with the clamp, lest undue contraction results later.

Mr. Alfred Willett has used this method for some years past, and in his hands it has been most successful.

Whitehead's operation is, so to speak, "a thing of itself," and although fascinating from a surgeon's point of view, it cannot be recommended for general use, and even skilled surgeons will find only a small percentage of cases where the operation is really justifiable.

This operation is done with the patient in the lithotomy position. The mucous membrane is separated all round the anal orifice from the skin, and then dissected off the sphincters. The mucous membrane with the hæmorrhoids is next brought down outside the anus, the pile area is now removed, and after stopping the hæmorrhage, which may be quite free, the cut end of the mucous membrane is sewn to the cut skin margin. Primary union is supposed to occur, and the patient is well in a fortnight.

All this sounds easy and delightful, but it certainly is *not* easy and may be far from delightful, if undertaken by anyone not thoroughly practised in operating. The external and even the internal sphincters may not be recognised; the skin may be removed round the anus by mistake. The hæmorrhage, as I have said, may be quite free. Primary union will not occur in most cases, and many unpleasant sequelæ may happen when once suppuration takes place.

This seems a severe criticism for what is really a clever piece of surgery, which in certain cases, under proper conditions, may have the happiest result. My object is to impress on the young and ardent surgeon that this operation is not one to be lightly undertaken for a disease which can be as well, if not better treated by a much safer and more simple method.

The *operation by ligature* is now well recognised to be by far the best and safest way of dealing with piles.

During the last eighteen years, 4643 patients have been admitted into St. Mark's Hospital for operation. Of these, 1197 were operated on for hæmorrhoids (635 males and 562 females), nearly 26 per cent. of the whole number.

Of these 1197 patients only four have died, and the causes of death are as follows:

1. W. S., æt. 49, admitted June 26th, died July 20th, 1882. Cause of death: Peritonitis.
2. R. T. D., æt. 63, admitted April 3rd, died April 9th, 1886. Cause of death: Phlegmonous cellulitis after operation; chronic nephritis.
3. M. K., æt. 56, admitted June 24th, died July 28th, 1887. Cause of death: Chronic bronchitis; renal disease.
4. J. S., æt. 71, admitted March 8th, died March 13th, 1890. Cause of death: Syncope; subcutaneous extravasation of blood; sarcoma of sacrum.

Taking the whole four, the death-rate is '33 per cent.,

which is small enough, but it must be admitted that three out of the four cases above were obviously not patients upon whom an operation should have been performed, and this leaves one case in 1197 which can be really attributed to the operation!

The points to be remembered about the operation are—

1. The sphincters should be gradually but fully dilated.
2. The pile should be pulled down by a hook and cut in the longitudinal axis through the lower sulcus, leaving the vessels and mucous membrane above untouched.
3. The ligature should be of stout silk which has been well boiled, and kept in either perchloride or carbolic, and when applied must be tied quite *tight*; and as a matter of practice a third knot should be tied.

These are the main points to be remembered.

It is a common practice at the end of the operation to introduce either a plug of dry wool or else a strip of gauze into the rectum. I do not believe this proceeding is of any use, and I am quite sure that it often causes pain.

After treatment, complications, and sequelæ of hæmorrhoids will be discussed in the next paper.

Aboriginal Medicine among the Mundas of Chota-Nagpore.

By Surgeon Captain F. P. MAVNARD, M.B., D.P.H., Indian Medical Service, General Hospital, Calcutta.

ABOUT fifteen months ago, in contributing a short account to this JOURNAL of experiences met with as Medical Officer of the Baluch-Afghan Boundary Commission, I mentioned some curious forms of medical treatment met with among the Baluchis and Afghans. Since returning from that mission I have been Civil Surgeon of Lohardaga in Chota-Nagpore, where nearly 400,000 out of a population of about a million and a quarter belong to the aboriginal tribes classed under the term Kol. They are principally Mundas and Oraons, and while studying the language of the former I came across some medical facts which may be of interest to the readers of the JOURNAL. The Mundas are a Kolarian tribe: their language is purely colloquial and very difficult. No abstract ideas can be properly expressed in it, and Hindi is so rapidly invading it that even now it is rare, except in certain parts of the district, to meet with a man who speaks it in its pure form. All the same their anatomical terms are fairly numerous. They have separate names for the different parts of the extremities, *i. e.* for the fingers, arm, hand, hip, thigh, knee, leg, &c.; also for some of the internal organs, and for the features of the face. The lungs, kidneys, and liver are named, but the word for heart means "head of the liver," in which they think life resides; the brain is also known.

The word for uterus means a paddy nest or receptacle for rice. The word for tongue is the same as in Chinese, which language is regarded by some philologists as akin to Mundari.

Some of the Mundas have remarkably well-marked Mongolian features—slanting almond eyes, and even fair skins, though as a race they are the blackest on earth, except, perhaps, negroes. They believe that there is one passage in the neck for both air and food, and that the breath goes straight down into the stomach. They know the temple, and that a blow on it is likely to prove suddenly fatal; they also recognise the temporal pulse, for which they have a special word. The compound word used for ribs means the "sound-bones." The precision of their anatomical terms may in part be due to their burial customs. They bury their dead temporarily, then after some months dig up the bones and re-bury them with ceremony in their burial grounds; in this way obtaining a knowledge of the bony skeleton not possessed by ordinary mortals. The Mundas' terms for disease are very limited, and death in their opinion is due generally to fever or diarrhoea, or swollen body (dropsy). One word, "hasu," means wound, pain, bruise, and disease in general. It is tacked on to the name of any part, and implies disease of that part—of what nature doesn't matter or appear to interest them. Swelling is used for abscesses, tumour or swelling of any kind, and for dropsy. Cholera and diarrhoea are the same, though they recognise suppression of urine. Dysentery is unnamed, though common enough. Names for venereal diseases are borrowed from Hindi when required. Hematuria is named, though stone is rare. Intestinal worms are frequent and honoured with names. A fatal form of illness occurring in childbed is recognised and named; it is called "the cold illness," and is described as a fever accompanied by dry cough and swelling of the feet. Like some other races in India they believe that women dying during pregnancy or in childbed become ghosts with inverted feet (heels foremost), having thorns in their soles, and fire issuing from their mouths, and in this state haunt the neighbourhood of their villages. They are great on skin diseases, perhaps because they never wash, and they distinguish between various shapes and sizes of pimples and kinds of boils. One remarkable fact is that the Mundas have a compound word meaning "to cut young ones out of the womb of the mother." I never heard of its being done, however. Post-mortem rigidity has its own term. As a recognition of the aetiology of disease is rather rare among natives of India, it is an interesting fact that they have a special word to denote that a disease is infectious. The following diseases were declared to me to be infectious, meaning thereby, it was explained, capable of spreading from the individual infected to the healthy people around:—ophthalmia, cholera, hemicrania, smallpox, syphilis, itch, "some fevers," epilepsy (by means of the breath), leprosy, and gonorrhœa. The two words

they use for the menses are descriptive of the two periods when they say menstruation occurs, viz. at full moon, and at the period of dark nights midway between the two full moons.

Their medicines are few, mainly for applying to wounds, curing itch, producing constipation, and purgatives. Of a root used as a purgative a piece (crushed in water) "as long as four fingers' breadth" will (they say) cause four stools "as long as two fingers' breadth," two stools, and so on. Of surgery they know nothing apparently, and their reaction to, and behaviour after, operations is well illustrated by a man on whom I operated for a fairly large liver abscess (very rare, be it known, among them, and due in this case to alcohol). Three or four days after operation he left the hospital, as he said he felt all right, and he was seen wandering about with a large drainage-tube sticking out of his epigastrium, and no dressing on. He recovered.

With reference to the discussions that have taken place of late regarding the order of development of the different senses and faculties in man, the question of colour vision in the Mundas is a very interesting one. The only words connected with colour they possess are black, white, and red. I cannot do better than quote the following extract (by permission) from the manuscript of a grammar of the Mundari language shortly to be published by Father Hoffmann, S.J., whose knowledge of the people and their language is very intimate.

"What seems more surprising still is the fact that they have comparatively few words denoting such purely physical qualities as must needs strike them. Thus they have only three names for colours: the pure blue sky of Chota-Nagpore, the light green rice-fields, the rich forests with their numberless hues, as well as everything else that is not white or red, is simply called *hende*—black. From light grey to the purest white everything is *hundi*—white. Whatever colour does not fall under these two heads is *ara*—red. And yet the Munda is by no means colour-blind or indifferent to colours; he delights in them. If you urge him to specify some kind of red, he will tell you that it is red like saffron, or like this or that flower; again, to specify some particular kind of his wide range of blackness, he will tell you that something is black like the rice-fields, or black like the leaves of this or that kind of tree, or like the sky, or like the night, or like sleep. On the other hand, he has a set of words denoting colour, but they are restricted to his cattle and his fowls. Again, though the Mundas are probably the darkest race in India, they distinguish between the *sol*, or fair, and the *hende*, or black individuals of their tribe. For the newcomer from Europe it takes some time before he perceives the difference."

A profusion of bright colours is especially relished. They denote it by a jingle word which savours of the nervous excitement it causes in them—*chiriviri-chiriviri*.

Witchcraft flourishes among them, and nearly every village

is cursed with its *soba*, or witch-diviner, who, needless to say, makes a good thing out of it. He is in particular request during famine and pestilence, and many are the assaults and even murders brought about by his agency. Human sacrifice was common among the Kols until recent years. They will sacrifice almost anything, indeed, to please the evil spirits who cause disease, failure of the rains, and other calamities. They have only one good spirit—the sun god; to whom, being good, they of course consider it unnecessary to offer any sacrifices. Evil spirits swarm in every village and grove, and have to be appeased at all costs.

A Case of Thrombosis of the Femoral Artery following Pneumonia.

By JOHN J. BLACDEN, M.R.C.S., L.R.C.P., Harwood, Horrabridge, South Devon.

MR. D.—, æt. 92, complaining of severe attacks of shivering, headache, and slight cough. The previous history was that she had never been laid up for a day since her last confinement—about fifty years previously.

On the morning of December 9th, 1897, she was in her usual health, and had walked half a mile to fetch milk from a farm. On her return about 11.30 she had a violent rigor and went to bed, where I found her at 1.45 trying in vain to keep warm. She was in full possession of her faculties, but anxious and distressed. Pulse 110, soft and somewhat intermittent. Temp. 102.5°; skin feeling harsh and dry, *alæ nasi* working. Examination of the chest revealed nothing abnormal beyond a slight accentuation of the second sound at the pulmonary base. I considered it to be either pneumonia or influenza—the latter being epidemic at the time,—and ordered her stimulants, milk diet, and a mixture containing Liq. Ammon. Acet., &c.

December 10th.—Temperature unaltered; pulse extremely rapid, feeble, and intermittent; she complained of pain in her left side, and was coughing up reddened viscid sputum. Examination of the chest revealed dulness, crepitations, and bronchial breathing over the lower lobe of the left lung. Considering her age I gave a very grave prognosis, and considered that her best chance lay in regulating and stimulating the action of the heart; so I increased her stimulants, and gave her doses of Liq. Strych. $\frac{m\bar{v}}$, Fr. Digitalis $\frac{m\bar{x}}$, sextis horis. This produced a decided effect, her pulse being greatly improved that evening, and next morning being about 100, and intermittent about one beat in twenty.

On the 11th and 12th she remained in about the same condition, her temperature varying between 101.5° and 103°; but when I visited her on the evening of the 12th I found her far more comfortable, her temperature being then 99°.

On the 13th her temperature was 97.8° in the morning, and she thought herself, and seemed, on the high road to recovery.

On the 14th (the sixth day of the disease) at 1.30 a.m. I was called to her in haste, and found her almost speechless from pain in the left popliteal space, with great tenderness over the entire course of the femoral artery, in which no pulsations could be felt; the foot and leg were quite cold. I wrapped the limb in a blanket, and surrounded it with hot-water bottles, and was obliged to give her morphia gr. 4 hypodermically to relieve her intense pain.

From this time onwards she became gradually comatose, only complaining of pain, and refusing nourishment. A huge acute bed sore formed over the left buttock. She was seen in consultation with me by Dr. T. E. Sayth, of Tavistock, who agreed that for many and obvious reasons operative measures were out of the question, and that I should do my best to relieve her pain by morphia.

On the 19th the first indications of a line of demarcation appeared at the level of Poupert's ligament, and on the 20th, the twelfth day from the onset of pneumonia, she died.

I consider it a case of thrombosis of the femoral artery following pneumonia, and think it probable that one or more branches of the internal iliac were also blocked, thus accounting for the bed sore. Such cases are, I believe, of extreme rarity, which is my excuse for publishing notes of this case.

It seems also worthy of note that a person of her great age should have survived the direct attack of pneumonia. In two other similar cases that have come under my care the patients, aged 90 and 100 years respectively, have died of heart failure due to hyperpyrexia in an early stage of the disease.

Notes.

THE polling for an Assistant Surgeon, *vice* Mr. Walsham, who has become full Surgeon, took place on Thursday, April 28th. The result was announced about a quarter-past three o'clock, the figures being—

Mr. D'Arcy Power	...	...	...	71
Mr. Berry	...	...	...	60

MR. D'ARCY POWER entered the Hospital in 1878, having previously obtained a First Class in the Honours School of Natural Science at Oxford. He was successively Assistant Demonstrator of Physiology, Ophthalmic House Surgeon, House Surgeon, Curator of the Museum, and Demonstrator of Practical and Operative Surgery. He is also Surgeon to the Victoria Hospital for Children at Chelsea, and last year held the Hunterian Professorship in Surgery and Pathology.

ONCE again the Jacksonian Prize has fallen to a Bart's man. This year it has been awarded to Mr. Percy Furnivall for his essay on "The Pathology, Diagnosis, and Treatment of the various Neoplasms met with in the stomach, small intestine, cæcum, and colon." We offer him our heartiest congratulations on having kept up the splendid record secured in the previous three years by Mr. Waring, Professor Kanthack, and Mr. Bailey. We also beg to congratulate him on other grounds. If any of our readers are ignorant of those grounds they are referred to p. 128.

MR. BOWLBY'S wedding on Tuesday, April 12th, at Buckworth, was accompanied by much ceremony and rejoicing. In the evening the Hon. H. W. and Mrs. Mostyn entertained the villagers to a supper, followed by a dance.

Letters referring to some wedding presents from members of the Hospital to Mr. Bowlby will be found in our correspondence column.

THE Annual Dinner of the Amalgamated Clubs will be held on Saturday, June 11th, after the cricket match Past *v.* Present. The place of meeting will be the Holborn Restaurant, and Dr. Griffith will take the Chair. It is hoped that all will make an effort to be present.

DR. OSWALD BROWNE, Dr. F. P. Weber, and Dr. J. H. Campbell have been elected Fellows of the Royal College of Physicians of London.

SURGEON-CAPTAIN H. F. Whitechurch, V.C., in medical charge of the 24th Bengal Infantry, has again been mentioned in despatches; this time for the readiness of his arrangements on the North-west Frontier Campaign in India. It is added that he was in the firing line attending to the wounded from the time the action began.

SURGEON-MAJOR RONALD ROSS, I.M.S., has been placed on special duty, and is now working in Professor D. D. Cunningham's laboratory in Calcutta at the mosquito theory of the malaria parasite. It will be remembered that Dr. Ross has already distinguished himself by his original researches on this subject.

SURGEON-CAPTAIN F. P. MAYNARD, I.M.S., Officiating Second Resident Surgeon, Presidency General Hospital, Calcutta, has taken over the duties of editor of the *Indian Medical Gazette*.

OUR account of the presentation of a picture and testimonial to Mr. Berry was much appreciated in various quarters. Indeed, so much did one of our contemporaries appreciate it that nearly a column was quoted in its pages without the slightest acknowledgment.

THE Brackenbury Surgical Scholarship has been awarded to H. Mundy.

THE Wix Prize for the best essay on "The Life and Work of Sir Charles Bell" has been awarded to W. E. LL. Davies.

R. A. YELD has taken the degrees of M.B., B.C., at Cambridge.

E. C. BRIDGES has taken the M.D. degree of Durham.

THE degrees of M.B., B.S., have been conferred at Durham upon H. E. M. Baylis, F. W. Crossman, R. C. J. Stevens, P. E. Turner, and M. D. Wood; and that of M.B. upon H. J. Godwin.

We are requested to call attention to the fact that the Matrons' Council, a society composed of the matrons of hospitals, proposes to hold its first annual conference in London on June 15th and 16th next, when papers on questions of professional and public interest will be read. Such subjects as "The Matron's Duty to her Profession," "Specialism in Nursing," and "A Practical Standard of Nursing" will naturally appeal to trained nurses; and the subjects of "Home Hospitals," "Nursing as a Domestic Art," "Suggested Reforms in the Army Nursing Service," and "Women's Work on Infirmary Boards" will appeal to all those members of the general public who are alive to the importance of the efficient nursing of all classes in the hospital and the home. The Matron of St. Bartholomew's Hospital will take the chair at this conference.

Amalgamated Clubs.

CRICKET CLUB.

The following are the officers for the coming season:
Captain.—E. F. Rose.
Secretaries of 1st XI.—J. C. Sale, H. W. Park.
Captain of 2nd XI.—H. J. Pickering.
Vice-Captain and Secretary of 2nd XI.—A. H. Bostock.
Committee.—H. Bond, F. H. Maturin, J. W. Nunn, H. S. Greaves, J. A. Willett, W. H. Randolph.

A very strong match card has been arranged for this season,—in fact, quite the strongest we have ever had. The weaker of our last year's fixtures have been dropped, and matches arranged with Oxford University Athletics, the Wanderers, and Esher.
 All but two of our last year's team will be again available, and in addition there are several freshmen who come up with good reputations. If all will only do their best to play regularly we ought to have an excellent chance of regaining the Cup that we lost last year. The pitch at Winchmore Hill was relaid at the beginning of the winter, and also a piece for practice wickets. The exceptionally mild winter has allowed the turf to get well settled, and there seems every prospect of excellent wickets for the coming season. The Past & Present match has been arranged for Saturday, June 11th. All old Bart's men willing to play for the Past are requested to write to the secretary as early as possible. It is to be hoped that a more representative team will be got together than was the case last year.
 The 1st XI matches arranged are—

Date.	Opponents.	Place.
Wed. May 4	Practice game	Winchmore Hill
Sat. " 7	R.I.E.C.	Cooper's Hill
" 14	Esher	Esher
Thurs. " 19	Crystal Palace	Crystal Palace
Sat. " 21	M.C.C.	Winchmore Hill
Mon. " 30	Hornsey	Hornsey
Sat. June 4	Keensington Park	Winchmore Hill
" 11	Past & Present	Winchmore Hill
Wed. " 15	Richmond	Richmond
Sat. " 18	Hampstead	Hampstead
Wed. " 22	Ealing	Ealing
Sat. " 25	Oxford University Athletics	Winchmore Hill
" July 2	Wanderers	Winchmore Hill
Wed. " 6	Hornsey	Winchmore Hill
Sat. " 16	Kensington Park	Wormwood Scrubbs
Tues. " 26	Surbiton	Surbiton

(Surbiton week.)

LAWN TENNIS CLUB.

The Annual General Meeting of the above club was held on January 27th.
 The following gentlemen were elected to act as officers for the coming season:
Captain.—V. S. A. Bell.
Hon. Secretaries.—J. K. N. Marsh, J. Stirling Hamilton.
Committee.—S. Hoey, H. Burrows, C. H. Barnes, F. E. Murray, J. W. Nunn, G. V. Bull, C. M. Pennefather, H. Walker.

MATCHES.

Date.	Name of Club.	Where Played.
Wed. May 4	Albemarle L.T.C.	Winchmore Hill
Sat. " 14	Southgate L.T.C.	Southgate
Wed. " 18	Hornsey L.T.C.	Hornsey
Thurs. " 19	Winchmore Hill L.T.C.	Winchmore Hill (Opponents' Ground).
Sat. " 21	Wanstead L.T.C.	Wanstead
" 28	Southgate L.T.C.	Winchmore Hill
Wed. June 1	Cooper's Hill L.T.C.	Cooper's Hill
Sat. " 11	Past & Present	Winchmore Hill
Wed. " 15	Hornsey L.T.C.	Winchmore Hill
Sat. " 25	Clarence L.T.C.	Winchmore Hill
Wed. July 6	Albemarle L.T.C.	Beckenham
Sat. " 9	Wanstead L.T.C.	Winchmore Hill
" 16	Putney	Winchmore Hill
Tues. " 19	Winchmore Hill	Winchmore Hill

SWIMMING CLUB.

The Club opens the season with every prospect of success, for several good men have come up. Although the Club has lost W. Fay Bennett, one of the best men who ever swam or played polo for the Hospital, it is hoped that the members of the teams will, by practising often and playing well together, make up for the loss, and at the end of the season bring back the Water Polo Cup to its old home.
 This being the first year of the Inter-Hospital Team Racing Shield, all swimmers are asked to turn up at the practices, so that a good team may be got together to represent the Hospital.
 Weekly meetings are held on Thursdays at 4.30 throughout the Summer Session at the Fitzroy Baths, Tottenham Court Road. The baths are quite close to Gower Street station, which can be easily reached in a quarter of an hour from the Hospital.
 Club tickets at the rate of 4d. each can be had from the Cloak Room at the Hospital.
 The following fixtures have been arranged:
 May 14th...Cambridge University...at Fitzroy Baths..... 5 p.m.
 " 18th...Richmond S.C.....at Fitzroy Baths..... 9 p.m.
 June 1st...Cambridge University...at Cambridge.....
 " 6th...Queen's Westminster...at Fitzroy Baths..... 9 p.m.
 " 14th...Otter S.C.....at St. George's Baths... 9 p.m.
 " 17th...Richmond S.C.....at Richmond Baths... 9 p.m.
 " 20th...Queen's Westminster...at Westminster Baths... 2 p.m.
 Further fixtures are being arranged.

ASSOCIATION FOOTBALL CLUB.

The following are the results of the matches played by the Reserves:

Played at	For	Agst.
Sat. 29th Jan. Kahere Club.....	Away	3 .. 1
Sat. 5th Feb. Beckenham II.....	Beckenham	3 .. 3
Wed. 9th " City of London School	Winchmore Hill	1 .. 0
Sat. 12th " Crouch End II.....	Winchmore Hill	3 .. 1
Sat. 19th " Norsemen.....	Away	6 .. 5
Sat. 26th " Templars.....	Away	0 .. 4
Tues. 1st Mar. Forest School.....	Away	3 .. 1
Sat. 5th " Guy's Hospital II.....	Winchmore Hill	0 .. 2
Wed. 9th " Royal School of Science	Winchmore Hill	2 .. 5
Sat. 12th " Ealing II.....	Winchmore Hill	2 .. 2

HOCKEY.

ST. BART'S v. BLACKHEATH 3RD XI.
 Played at Winchmore Hill on March 19th.
 Blackheath unfortunately turned up short, and to make matters worse, rain fell heavily most of the time. In the first half the visitors were in our circle on several occasions, but could not score. H. R. Mayo and Muirhead scored a goal each for us. In the second half we put on four more goals, T. A. Mayo (2) and Jeaffreson (2) being responsible for them; but accurate play was impossible, and the match closed before time.
Team.—F. H. Parker, D. Jeaffreson, G. B. Nicholson (backs); F. Shout, T. A. Mayo, M. O. Boyd (halves); A. Muirhead, H. R. Mayo, R. Imrurn, A. Hallowes, A. B. Edwards (forwards). Referee, E. C. Smyth.

ST. BART'S v. ROYAL OBSERVATORY.

Played at Blackheath on March 23rd.
 Lost, 2-3. The following facts may account for this reverse:—(1) we played a man short throughout, and two short to some time; (2) the eccentricities of the ground; and (3) we did not take down an ample.

Team.—D. Jeaffreson, H. Flint (backs); M. O. Boyd, T. A. Mayo, L. Orton (halves); A. H. Muirhead, J. A. Nixon, H. R. Mayo, A. Hallowes, A. B. Edwards (forwards).

ST. BART'S v. LONDON HOSPITAL.

Played at Winchmore Hill on March 30th.
 The first inter-hospital match resulted in a win for us by 3 goals to 1. The first half consisted mostly of give-and-take play until just before half-time Mayo obtained the ball, made an excellent run, and scored. On resuming play, Philbrick, after a good run, scored for London. Shortly after this Nixon scored again for us from a scramble in front of goal. London then pressed our goal, but, owing to the good defence of Jeaffreson and Orton, failed to score again. Edwards

and Hallowes then took the ball well up to the London twenty-five; the latter sent on to Mayo, who put it through easily, leaving us victors of the last match of the season. For the Hospital, Jeaffreson, Orton, and Mayo played a good game.
Team.—D. Jeaffreson, H. Flint, G. B. Nicholson (backs); F. H. Parker, V. Bell, L. Orton (halves); J. A. Nixon, A. H. Muirhead, T. A. Mayo, A. Hallowes, A. B. Edwards (forwards). Umpires, L. Spry and A. H. Pollock.
 The season's results read—Played 22, won 8, lost 11, drawn 3; goals for 61, against 66.

View Day.

THE annual View Day occurred on Wednesday, May 10th; fortunately the weather was most propitious, and in consequence the number of visitors was large, and the general air of festivity as marked as usual. The inspection of the wards and premises of the Hospital by the Governors took place with the traditional solemn ritual, and it would be hard to decide whether the appearance of the Beside, the Treasurer's questions, or the imposing presence of the porter clearing the way for the Governors was the most impressive. When all the wards had been visited and all the necessary questions asked, and every patient had had the opportunity of lodging complaints against the Hospital in general and his own ward in particular, the more serious part of the day's functions was entered upon, and everybody settled down to the pleasant and stimulating process of testing how many cups of tea could be imbibed without disaster. The ward decorations were in all cases very successful, and in some quite bewildering in beauty of design. Flowers were abundant, and gave a very gay appearance to the wards. It would be invidious to make selections where all were so good, but we noticed especially Lucas, President, Martha, Colston, and Charity, for beauty and originality of design. In the last-named ward the well-known initials "J L" in forget-me-nots made a most striking and pleasing appearance, and we especially admired the colour scheme in Colston. Hope claimed attention by reason of its harmony of decoration and its pretty children. When all the wards had been inspected, all the available tea disposed of, the baby reigning in Martha for the time being sufficiently interviewed and admired, the dispensary thoroughly investigated, the crowd slowly dispersed, and another and very successful View Day was brought to its natural end.

The View Dinner.

THE View Day succeeds View Dinner; and by 7 o'clock the Treasurer, Almoners, Governors, the Staff, the Teaching and Junior Staffs and the prize-winners had assembled in the Great Hall to do justice to the feast prepared by Messrs. Ring and Brymer. The aesthetic sense was perhaps not so gratified as usual by the table decorations, which made up by profusion what they certainly lacked in harmony.
 After the usual loyal toasts the Treasurer, Sir Trevor Lawrence, rose to propose the toast of the evening, "Prosperity to St. Bartholomew's Hospital, and health and ease to the poor patients." The speech accompanying this toast is always listened to with much interest, since, like the Premier's speech at the Lord Mayor's banquet, it usually contains a statement of the policy and plans of the powers that be. Almost equal in interest to the things that are said on such occasions are the things which are left out.
 Sir Trevor gave the numbers of the patients treated in the various departments as follows:

	1897.	1896.
In-patients	6,393	6,840
Out-patients	15,884	14,770
Casualty patients	128,817	133,817
Maternity cases	4,776	4,723

In the maternity department there had been an increase in the plural births—35 cases of twins, and on one occasion triplets. 1771 patients had been helped by food, surgical instruments, and clothes from the Samaritan Fund. This was not a charity dinner, but he felt sure that anyone who wished to make a donation could not do

better than help this most useful fund. There had been 996 convalescent patients sent to Swanley, and 66 to other homes.

He was happy to be able to give a favorable account of the income and property of the Hospital. Turning to the changes that the year had brought, he said that the resignation of Sir Thomas Smith had been received with great regret, but it was gratifying to remember that as Consulting Surgeon he was still one of our Staff, and that he was still engaged in active professional work. His place had been admirably filled by Mr. Walsham. He offered his congratulations to Mr. D'Arcy Power on his election to the Staff, and also to his father, Mr. Henry Power, so long our distinguished and popular Ophthalmic Surgeon. He referred in the warmest terms to the admirable work of Mr. Berry, and expressed his pleasure at the fact that we were not to lose his services as a teacher. This remark was received with a loud and lively demonstration of satisfaction, as was his next remark as to a probable recognition of his services by the Governors in the future. As Mr. Berry's successor we had secured a thoroughly competent man in Mr. Waring. There was one more resignation to announce, that of Dr. Shore, who had filled the difficult and exacting post of Warden with energy and ability.

He then referred to the changes in the East Wing—the new beds and lockers. Next year it was proposed to turn attention to the new wing and provide it with fire-escapes. The Hospital arrangements would then meet with the approval of Commander Wells in that respect. He thought that we might consider the difficulties with respect to the Christ's Hospital site at an end, and that we should be able to meet the urgent need for expansion. Coming to the work done by the various departments, Sir Trevor commented on the admirable services of the Medical and Surgical Staff, and on the excellence of the Nursing Staff. In this latter respect we laboured under two disadvantages, for the Nursing Staff were possessed of such personal attractions that they were constantly being removed by marriage, and of such high professional qualifications that they were always being tempted away to other institutions. He could not speak too highly of their devotion to their work. The Administrative Staff, under the careful and skilled guidance of Mr. Cross, maintained their high reputation, and in his son, Mr. H. W. Cross, we had found an Assistant Secretary of great promise. He concluded that we had every reason to be satisfied and proud of the old Hospital.

Sir Sidney Waterlow then rose to propose the health of "The Medical and Surgical Staff." He hoped that within those walls he would never be regarded as a stranger, and congratulated the Treasurer on the lucid account given of the work done here. The success of the work must depend largely on the ability, intelligence, and conscientiousness of the Medical and Surgical Staff. It was twenty-five years since he was elected Treasurer, and he had watched their promotion to their present distinguished position. While we can secure such talent the future of St. Bartholomew's Hospital is secured. He thanked them for the assistance rendered him in the establishment of a hospital at Cannes, and in conclusion referred to the loss we had sustained in the resignation of Sir Thomas Smith.

The toast having been drunk with enthusiasm, Dr. Church rose to reply for the Medical side. He expressed great pleasure at the toast having been placed in Sir Sidney Waterlow's hands, and not in those of an "outsider," however distinguished; for only a man in his position could fully estimate the work of the Staff. During his tenure of the office of Treasurer there had been greater internal changes than in any previous reign. He thanked the Governors for the generous way in which their requests on behalf of the School had been fulfilled. Not all had been, but it was not the will, but the means that were lacking. The more we got, the more we asked. "Walking the hospitals" had sometimes been regarded as much the same as the formal visit paid by the Governors to-day. In reality the work of a medical student involved arduous and consistent clinical study.

Mr. Willett then replied for the Surgical side. He referred to the recent changes in the Staff, which had put him in a position to reply to the toast. It was thirty-three years since he became Assistant Surgeon, following Sir William Lawrence's resignation. He was now Senior Surgeon, but he felt like the ancient Romans, who in the hour of their glory were reminded of their mortality. Having congratulated Mr. D'Arcy Power on his election, Mr. Willett proceeded to speak in the highest terms of Mr. Berry's work as a teacher and registrar, and said how warmly he would be welcomed at the Staff table. He then remedied a noteworthy omission in the Treasurer's speech by eulogizing the work of the Junior Staff, on whose trustworthiness and persistent industry he said the Visiting

Staff had to rely so much. As to the Nursing Staff, Mr. Willett commented on the fact that the same three Sisters administered in his wards as when he first became Surgeon here, and that he found them now, as ever, most energetic and devoted to their work. The past year or two had seen a great development in one department—the use of the X rays under the skilled superintendence of Dr. Lewis Jones. He concluded an effective and interesting speech by saying that this recognition of the labours of himself and his colleagues would be a great encouragement in their daily work in the wards.

Mr. Justice Grantham, in proposing the health of the Treasurer and Almoners, said he was more accustomed to sum up or to pass sentence than to make speeches. He did not know which he was expected to do now, but he felt he had come under false pretences. For on a "View Day" he expected to get a view of some difficult operation by Mr. Willett, or some great cure effected by Dr. Church, or at least a view of those interesting ladies of whom he had heard so much. He concluded by congratulating the Treasurer on the work of the Hospital, and the Hospital on having as its Treasurer one bearing the honoured name of Lawrence.

The Treasurer having briefly responded, Mr. Coleman replied for the Almoners. He claimed that in one respect he stood apart from his colleagues, in that he had once been on the Staff, but in whatever capacity it was a real pleasure to him to devote his services to the Hospital. He closed his speech by proposing the health of the visitors, a toast which was acknowledged by Sir John Bridge, Sir Henry Roscoe, in proposing the health of the prize-winners, said that he based his claim to do so as a teacher of medical students for thirty years, and as a successor at London University of Sir James Paget. He could speak highly from personal experience of the work turned out here. This toast having been suitably acknowledged by Mr. Auden, as Lawrence Scholar, the proceedings closed.

During the evening Mrs. Helen Trust sang three songs with her accustomed grace and finish, and M. Tivadar Nachez played five violin solos with his usual *verve*. Mr. S. Liddle acted as accompanist.

The Bahere Lodge, No. 2546.



AN ordinary meeting of the Bahere Lodge was held at Frascati's Restaurant on Tuesday, 10th May, 1898. Bro. W. J. Walsham, W.M., in the chair. Bro. Launcelot E. Towers was elected a joining member. Messrs. J. A. O. Briggs, Arthur Heath, and J. Stewart Mackintosh, jun., were elected members of the Lodge, and were afterwards initiated into Masonry by the W.M. Bros. Christopherson, Carnall, and Hoyland were passed to the second degree by W. Bro. West. A sum of thirty guineas was voted from the Lodge funds to the Centenary Festival of the Royal Masonic Institution for Boys. W. Bro. T. G. A. Burns was elected W.M. for the ensuing year; W. Bro. Clement Godson, M.D., was elected Treasurer; and Bro. Madden was re-elected Tyler. W. Bro. Gilbertson was nominated with Bros. Cross and West as Auditors. It was decided that the Lodge should offer itself for election as a perpetual member of the correspondence circle of the Quatuor Coronati Lodge. Between fifty and sixty brethren and their guests afterwards dined together.

Members of the Lodge are requested to take notice that the Installation Meeting of the Lodge will be held in the Great Hall of St. Bartholomew's Hospital on the second Tuesday in June.

The Month's Calendar.

[Secretaries of Clubs, &c., are requested to co-operate in making this list as complete as possible by forwarding notices of forthcoming events to the Editor.]

MAY.

Wed. 17th.—Dr. Gee's and Mr. Langton's duty.
Wed. 18th.—Mr. Willett's Clinical Lecture. St. Bart's L.T.C. v. Hornsey L.T.C. at Hornsey.
Thurs. 19th.—Examination for Lawrence Scholarship begins. St. Bart's C.C. v. Crystal Palace C.C. at Crystal Palace. St. Bart's L.T.C. v. Winchmore Hill L.T.C. at Winchmore Hill.

Fri. 20th.—Sir Dyce Duckworth's and Mr. Marsh's duty. Sir Dyce Duckworth's Clinical Lecture.
Sat. 21st.—St. Bart's C.C. v. M.C.C. at Winchmore Hill. St. Bart's L.T.C. v. Wanstead at Wanstead.
Tues. 24th.—Dr. Hensley's and Mr. Butlin's duty.
Wed. 25th.—Mr. Willett's Clinical Lecture.
Fri. 27th.—Dr. Brunton's and Mr. Walsham's duty. Dr. Hensley's Clinical Lecture.
Sat. 28th.—St. Bart's L.T.C. v. Southgate at Winchmore Hill.
Mon. 30th.—St. Bart's v. Hornsey at Hornsey.
Tues. 31st.—Dr. Church's and Mr. Willett's duty.
JUNE.
Wed. 1st.—Mr. Marsh's Clinical Lecture. St. Bart's L.T.C. v. Cooper's Hill at Cooper's Hill.
Fri. 3rd.—Dr. Gee's and Mr. Langton's duty. Dr. Brunton's Clinical Lecture. Examination for Matthews Duncan Medal.
Sat. 4th.—St. Bart's C.C. v. Kensington Park at Winchmore Hill. St. Bart's L.T.C. v. Connaught at Chingford.
Tues. 7th.—Sir Dyce Duckworth's and Mr. Marsh's duty. St. Bart's L.T.C. v. Albemarle at Winchmore Hill.
Wed. 8th.—Mr. Butlin's Clinical Lecture.
Fri. 10th.—Dr. Hensley's and Mr. Butlin's duty. Dr. Church's Clinical Lecture.
Sat. 11th.—Past v. Present at Winchmore Hill. St. Bart's L.T.C. v. Clarence at Brixton. Amalgamated Clubs' Dinner at Holborn Restaurant.
Tues. 14th.—Dr. Brunton's and Mr. Walsham's duty. Meeting of Rahere Lodge in the Great Hall.
Wed. 15th.—Mr. Butlin's Clinical Lecture. St. Bart's C.C. v. Richmond at Richmond. St. Bart's L.T.C. v. Hornsey at Winchmore Hill.

Reviews.

LECTURES ON RENAL AND URINARY DISEASES. By Robert Saundby, M.D. Edin., F.R.C.P. Lond., second edition, 1896.

At the risk of being thought pedantic, we venture to quarrel with the title of the book before us. It is a misnomer, more than a third of the work being devoted to diabetes, a disease which is neither renal nor urinary. We are aware that the author introduces the term "urinary" to cover the lectures on diabetes, but surely a more fitting title, and a less deceptive one, would be *Lectures on Renal Diseases and Diabetes*—more fitting for the reason just given, and less deceptive because the student whom the present title of the book warrants in expecting an account of, say such important a urinary disease as cystitis, would seek for it in vain. Fortunately the book still retains the name of "Lectures"; this should warn the reader against considering it in any sense a text-book. Such a common disease as nephropathy, for instance, finds no place in it. Among the early chapters in the section on Bright's disease are some of special value. Foremost in this respect is that upon *retinal changes*: this is excellent, and undoubtedly forms the best account we possess of this important subject. As Dr. Saundby reminds us, a systematic and careful examination of the fundus oculi in cases of Bright's disease is particularly useful as an aid in prognosis. Scarcely less valuable are the lectures on the pathological relations of tube-casts and cardio-vascular changes. These preliminaries over, the author is confronted by the old difficulty of classification. We cannot regard his attempt at a solution as successful. The pathological division of cases into "parenchymatous" and "interstitial" cannot be relied upon ante mortem. Granted,—but the alternative offered us, "infective" and "lithæmic" (we pass over Dr. Saundby's third group of "obstructive" cases, as being a convenient category in which to place those that are secondary to diseases of the urinary tract), seems equally unsatisfactory. For we are led beyond our facts in granting that all cases of nephritis not caused by the infective fevers are due to "the presence of uric acid in the blood, and to the prolonged effects of its elimination through the kidneys," which is the author's ætiological definition of his term "lithæmic." As might be expected, we notice a plentiful use of the word "dyscrasia" to explain cases which this definition scarcely seems to cover. Thus it seems unnecessary in the absence of proof to the contrary, to assume that the damaged kidney in a case of nephritis due to lead is not the work of the poison itself, but is the result of the lead causing "an accumulation of uric acid in the system."

Similarly with the nephritis set up by such a drug as turpentine. Indeed, beyond the bare division of cases into acute and chronic—a division which is itself often difficult to maintain—the question arises, is it necessary to divide them further?

In a work that professes special attention to the clinical aspect of its subject, we could have wished for a fuller account of the various uræmic conditions met with—those important manifestations of chronic kidney disease for which patients seek advice previous to, or it may be without ever developing, the more unequivocal symptoms of dropsy, frequent or scanty micturition, &c. Thus the gastro-intestinal group of uræmic symptoms is dismissed in half a dozen lines, whereas we have seen cases, both of persistent vomiting and profuse diarrhoea, going on to fatal terminations without any other signs leading to the diagnosis of the extreme degree of granular kidney found post mortem. An account of uræmic skin eruptions, instead of a bald mention of their occurrence, would be valuable. In the cerebral group we find no note (apart from hemiplegia) of uræmic aphasia.

We can heartily commend the plan of illustrating the text by nearly a hundred clinical cases, which are all of them helpful. There are also thirty useful pages on the clinical examination of the urine. The ophthalmoscopic plates are as good as these productions usually are.

In the lectures on diabetes we feel the author is treading upon ground specially familiar to him. Our only regret is his inability to "show us any new thing." In the historical section we miss the name of Cruickshank, to whom we owe the first chemical test for sugar in diabetic urine. And in the account of phloridzin diabetes we are told that in this condition glycosuria occurs without hyperglycæmia, the formation of the sugar being put down to the action of the renal epithelium; but Coolen, and afterwards Pavy, proved that the ingestion of phloridzin was followed by excess of sugar in the blood; so we still know of no exception to the rule that glycosuria and hyperglycæmia are co-existent, the former being the sign of the latter. The Bradshaw Lecture for 1890, on the morbid anatomy of diabetes, is inserted (revised); but even here, where the author is most of all at home, our regret repeats itself—effects come, but causes linger,—and it all amounts to so little. Of no pathological condition do we know more associated facts than of diabetes, yet for none are our facts of less value towards any practical application. But then that is not Dr. Saundby's fault.

THE YEAR-BOOK OF TREATMENT FOR 1898. (Cassell and Co., Ltd.)

We welcome the fourteenth annual issue of this useful work. Its scope is, of course, wider than its title implies, including as it does a good deal more than treatment. It is, in fact, a critical summary of the important advances in the various branches of medicine and surgery; the information being supplied in a readable form by reliable authorities. We notice that Mr. Henry Power contributes the article on "Diseases of the Eye," Mr. Walsham that on "Orthopædic Surgery," and Dr. Garrod that on "Gout, Rheumatism, and Rheumatoid Arthritis." This book is all but indispensable to those who desire to keep themselves acquainted with what is being done and said in the various departments of medicine.

CLINICAL LECTURES ON URINE, by J. Rose Bradford, M.D., F.R.C.P., F.R.S. (London: The Medical Publishing Co., Ltd. Price 2s.)

These admirable lectures are reprinted from the *Clinical Journal*, and will be found very useful in their present more compact form. Dr. Rose Bradford's name is a sufficient guarantee that they are at once thoroughly scientific and practical, for he is well qualified to speak both from the clinical and the experimental standpoint. His own share in advancing our knowledge of the physiology of the kidney is by no means a slight one, for we owe to him researches on the vaso-motor nerves of this organ and the part played by it in general metabolic processes.

Dr. Clifford Beale's translation of Von Jaruntowsky's monograph on SANATORIA FOR CONSUMPTIVES (London: The Rebmam Publishing Co., Ltd.) affords a concise and useful manual on a very important subject, of which we fear little is known in this country. The practitioner who has the responsibility of advising a patient as to climatic treatment will find this a useful book of reference.

We have received from E. and S. Livingstone a book (price 2s. 6d.) entitled DISEASES OF THE SKIN, by "Utile quod Facias." We must confess to a very strong objection to use of a *nom-de-plume* in scientific text-books. If a book is worth writing at all the author need not be ashamed of putting his name to it. Incidentally we cull

a charming piece of English from page 11: "Excoriation is a partial removal of the epidermis. They are frequently due to scratching."

Mr. J. A. Kempe's little book on DISEASES OF THE EYE (Edinburgh: E. and S. Livingstone, price 1s. 6d.) is a clear *résumé* of the important points of this subject, which may usefully serve for purposes of revision just prior to an examination.

New Productions.

IMPROVED CLINICAL THERMOMETERS.—We have received a sample of new patent clinical thermometers which Messrs. Maw, Son and Thompson are now putting upon the market. Hitherto the great disadvantage of all forms of thermometers has been the difficulty experienced in shaking down the index after use; especially is this the case with the more rapidly registering instruments, on account of their extremely fine bores. By means of the new patent this difficulty is obviated. Its efficiency may be readily tested in the following way:—Take one of the old forms of thermometers and one of the new patents, and force the mercury in each up to about 105°; then hold the two together side by side in one hand and shake of the hand the mercury in this new instrument has gone down about twice the distance that it has in the other. The new principle is adapted to all forms of clinical thermometers, whether "1 minute," "1 minute," ordinary, or lenticular, &c., and the difference between the price of the new and old is only 8s. per dozen. We can vouch for their convenience from personal experience.

THE ALFORMANT LAMP.—Wholesale agents, A. & M. Zimmermann, 9 and 10, St. Mary-at-Hill, E.C.

Formalin is a drug which has come rapidly into use in various directions. At this Hospital we are familiar with it as a preservative agent for museum specimens; and the vapour of formaldehyde given off from polymerised dry formalin is shown to be a powerful and effective disinfectant,—10 grammes of formalin being enough for a room of 1000 cubic feet. We have already (August, 1897) referred to the convenience of the Alformant lamp for distributing the gas; Messrs. Zimmermann have now introduced two sizes, the one marked A for use in hospitals and large rooms, and one marked B for ordinary dwelling-rooms. By such means the whole process may be readily carried out.

LEVICO WATER. (From the same agents, price 1s. 8d. per bottle.)—This is a natural water from the Tyrol, containing arsenious acid and sulphates of iron. There are two distinct springs; from one is bottled the Levico mild, and from the other, which is much richer, is obtained the Levico strong. Both these waters are bottled without dilution as they issue from the two springs, and do not undergo any process whatever. This would seem a satisfactory method of administering two important drugs, but we must dissent from the statement that it is "a very suitable and convenient form of arsenical medication for domestic use." Under no circumstances is arsenic a drug suitable to be used except under medical advice.

Appointments.

ATFIELD, D. H., M.B., B.C., D.P.H. (Cantab.), appointed Medical Officer of Health for the Watford Urban District.

BOX, S. L., M.B. (Lond.), M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Western General Dispensary.

DYSON, M. G., M.R.C.S., L.R.C.P., appointed Resident Assistant Medical Officer at the St. John's Road Workhouse and Infirmary of St. Mary Islington.

PARKER, H. T., M.D., B.S. (Lond.), D.P.H., appointed Medical Inspector of Egyptian Prisons.

ROBERTSON, F. W., M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., appointed Medical Officer in charge of the Casualty Department at the East London Hospital for Children, Shadwell.

SHELLY, C. E., M.D. Camb., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician by the Hertford and Ware Joint Hospital Board.

TASSEY-FVANS, J. T., M.D. Aberd., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician by the Hertford and Ware Joint Hospital Board.

Examinations.

CAMBRIDGE FINAL M.B., Part i.—H. Boulton, W. D. Harmer, K. Hay, A. C. Jordan, T. W. Letchworth, H. F. Parker, S. P. Pollard, E. Sewell, A. N. Ware. Part ii.—E. A. C. Matthews, A. E. Naish, J. E. Sandilands, Hon. G. H. Scott.

M.D. DURHAM.—E. C. Bridges.

FINAL M.B. DURHAM.—H. E. M. Baylis, F. W. Crossman, H. J. Godwin, R. C. J. Stevens, P. E. Turner, M. D. Wood.

FINAL B.S. DURHAM.—H. E. M. Baylis, F. W. Crossman, R. C. J. Stevens, P. E. Turner, M. D. Wood.

SECOND CONJOINT.—*Anatomy and Physiology*.—C. H. D. Robbs, B. S. O. Mansell, H. R. Humby, G. J. Humphreys, J. C. Sale, A. H. John, A. E. Thomas, A. H. Bostock, C. S. Hawes, T. E. C. Cole, W. R. Read.

FIRST CONJOINT.—*Chemistry*.—E. O. Hughes, E. W. Dill, E. W. Alment, J. O. Bennett, R. J. P. Thomas, H. B. Butler, E. H. G. Duncan, W. C. F. Harland, P. J. Martin, A. O'Neill, H. E. Scoones, W. H. Scott, H. A. Woodruffe.

FIRST CONJOINT.—*Biology*.—E. W. Alment, J. O. Bennett, R. J. P. Thomas, G. L. J. Acres, G. H. Adam, M. O. Boyd, N. A. W. Conolly, J. Corbin, S. E. Crawford, W. R. L. Drawbridge, A. Hallows, C. W. C. Harvey, F. Harvey, E. L. Hodgson, R. Holtby, F. W. Jackson, C. S. Kingston, E. Leverton-Spry, N. MacFadyen, A. H. Muirhead, C. Murdoch, T. C. Neville, C. V. Nicoll, A. S. Petrie, J. M. Plews, P. M. Rivaz, W. R. Square, H. E. Stanger-Leathes, L. R. Tosswill.

FIRST CONJOINT.—(*Old Regulations*) *Elementary Physiology*.—W. R. Read.

FINAL L.S.A.—*Midwifery*.—P. Cator, N. Walmisley.

FINAL M.R.C.S. AND L.R.C.P.—The following have passed all parts of this examination, and have received their Diplomas:—J. G. F. Hosken, F. L. Provis, J. E. Robinson, E. W. Woodbridge, W. W. Lacey, R. Raines, E. A. C. Matthews, H. A. Lovison, H. G. Harris, C. G. Watson, S. A. Millen, A. L. Scott, C. F. Winkfield, L. L. Allen, P. P. Lal Atal, A. E. Hodgkins, A. E. Smithson, H. A. Scholberg.

Correspondence.

To the Editor of the *St. Bartholomew's Hospital Journal*.

THE SEVENTH DECENNIAL CONTEMPORARY CLUB.

DEAR SIR,—Will you kindly allow us, through the medium of your columns, to acquaint the members of this club of the result of the collection raised in order to present a wedding present to Mr. Bowly?

The total amount collected was £65 18s. and after deducting £2 4s. for printing and postage £63 14s. remained. With this sum, in consultation with Mr. and Mrs. Bowly, we have bought a set of fine open filigree Silver Baskets for table decoration, consisting of one large basket and two pairs of smaller ones. These it is proposed to hand over formally to Mr. Bowly at the next

Annual Dinner, on the first Wednesday in July (6th), when we hope for a record attendance of the members of the club.

Yours faithfully,

HOWARD TOOTH, } Hon.
EDGAR WILLET, }
F. C. WALLIS, } Treasurers.

To the Editor of the *St. Bartholomew's Hospital Journal*.

THE ATHLETIC CLUBS.

DEAR SIR,—The past and present members of the Hospital Athletic Clubs who subscribed for a wedding present to Mr. Bowly will be interested to hear that the amount raised was £86 15s. After deducting £1 9s. 6d. for expenses of printing and postage there remained £85 5s. 6d.

This sum has been expended in accordance with the wishes of Mr. Bowly in purchasing, first, a china dinner service, and secondly, a silver tray and claret jug. It is intended to present these to Mr. Bowly on the occasion of the dinner of the Amalgamated Clubs, which is to be held on Saturday, June 11th.

Faithfully yours,

On behalf of the Committee,
THE HON. TREASURER.

Births.

GRUMMIT.—On April 20th, at Kingsbridge, South Devon, the wife of C. C. Grummit, M.R.C.S., L.R.C.P., of a daughter.

HOLDEN.—On April 27th, at 168, Castle Hill, Reading, the wife of George Herbert Rose Holden, M.A., M.D. Cantab., of a son.

SEGUNDO.—On May 3rd, at Brook Street, Hanover Square, W., the wife of C. S. de Segundo, M.D., B.S. Lond., of a son.

Marriages.

BOWLEY—MOSTYN.—On Tuesday, April 12th, at All Saints' Church, Buckworth, by the Ven. Archdeacon Vosey, D.D., of Huntingdon, assisted by Rev. Lionel Majendie, B.A., Anthony Alfred Bowley, F.R.C.S., of 24, Manchester Square, to Maria Bridget, daughter of the Hon. and Rev. H. W. Mostyn, Rector of Buckworth, Hunts.

FURNIVALL—BUTLIN.—On 23rd April, at St. Andrew's, Well Street, by the Rev. W. T. Houldsworth, Vicar, assisted by the Rev. E. Grose Hodge, Rector of Holy Trinity, Marylebone, Percy Furnivall, F.R.C.S., of 39, Welbeck Street, Cavendish Square, W., to Olive Mary, elder daughter of Henry Trentham Butlin, F.R.C.S., of 82, Harley Street, W.

MURRELL—WILLIAMSON.—On April 26th, at St. John's Church, Putney, by the Rev. A. K. Hurley, George Frederick Murrell, M.B. Lond., of Craven Road, Reading, to Rose Annie, second daughter of John Williamson, of Beechhurst, Putney Common, Surrey.

SIMMONS MACKRELL.—On 21st April, at St. Andrew's Church, Ashley Place, S.W., by the Hon. and Rev. J. S. Northcote, Vicar, Percy Arden Simmons, of Otford, Kent, to Constance Mary, elder daughter of the late Alfred Sextus Mackrell, of 2, Manchester Square, W., and Crouch, Sevenoaks.

THORNE THORNE—HOUGHTON.—On the 27th ult., at St. Peter's, Old Woking, by the Rev. F. J. Oliphant, M.A., Vicar, assisted by the Rev. W. P. T. Hamilton, M.A., Barthold Bosly, eldest son of Sir Richard Thorne Thorne, K.C.B., F.R.S., to Ruth Golding, daughter of the late John Houghton, of Liverpool, and of Mrs. Houghton, of Poundfield, Old Woking.

Death.

GRÜBER.—On March 9th, P. O. Grüber, B.A. Cantab., aged 27, of phthisis.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *Nursing Record*, *Guy's Scope*, *The Hospital*, *St. Mary's Hospital Gazette*, *Middlesex Hospital Gazette*, *L'Echo Médical*.

St. Bartholomew's Hospital



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St. Bartholomew's Hospital Journal,

JUNE 14th, 1898.

"Æquum memento rebus in arduis
Serrare mentem."—*Horace*, Book II, Ode iii.

Pathological Jottings.

By A. A. KANTHACK, M.A., M.D., F.R.C.P., Fellow of King's College, and Professor of Pathology in the University of Cambridge.

VIII. SEPTICÆMIA, SECONDARY INFECTIONS, AND PYÆMIA.

WHILE dealing with inflammation it would be erroneous to direct our attention merely to the immediate tissue changes, disregarding the remote effects and complications. Of the latter, the most interesting, if not the most important, perhaps, are septicæmia, pyæmia, and secondary infections. The commonest cause of inflammation, as we have seen, are micro-organisms, and

the complications we are about to consider are closely bound up with the fate of these micro-organisms in the tissues. Whether it was one of the pyococci or a specific bacillus, such as the bacillus of typhoid fever, diphtheria, or tuberculosis, which caused the initial inflammatory lesion, its future is governed by the most diverse circumstances.

(1) The micro-organisms may remain localised at the seat of infection, where they produce simple inflammation or its different modifications. Here they may soon perish, the phenomena of inflammation coming to an end; or they may be pent up and retained together with some of the inflammatory products, acting as a continual irritant, so that a chronic suppuration results. This leads to chronic abscess or chronic ulceration. The micro-organisms persistently irritate the imperfectly formed, young, delicate tissue, which is an immature but highly vascular connective tissue, so that the inflammatory exudation, generally in the form of pus, continues. The micro-organisms, growing quietly and undisturbed, produce their poisons or toxins, which, being absorbed, lead to chronic intoxication (*toxæmia*), the effect of which may show itself as fever of a remittent, intermittent, or hectic type. Thus, where there are abscesses hidden in the tissues—as, for instance, in the lung or liver—the thermometer reveals to us the existence of a suppurative fever; and the same type of fever occurs with typhoid ulcers and with tubercular lesions.

(2) On the other hand, the organisms may not remain localised, but may be carried away from the primary seat of lesion. The paths by which they travel may be (a) either the lymphatics or (b) the blood-vessels. The pathogenic organisms being mostly parasitic, *i. e.* capable of thriving in or on living tissues, may travel along the lymph channels into the surrounding tissues, and form fresh foci of inflammation or suppuration at some distance from the primary area (*secondary infections*). Thus in croupous pneumonia the pneumococcus may be carried into the pleura, the pericardium, or the peritoneum by the lymph channels, and then may produce inflammatory changes in these situations. Again, the lymphatics may transfer the micro-organisms to

the nearest lymphatic glands, which in turn become inflamed or form fresh foci of infection. Thus in typhoid fever bacilli are carried to the mesenteric glands, or streptococci, with or without diphtheria bacilli, find their way into the cervical or bronchial glands during an attack of diphtheria, or suppurating glands appear in the groin, as a sequela to an ulcer in the foot. In such cases the symptoms may be those of a serious and severe toxæmia, the number of foci whence poison may be absorbed being or becoming numerous and extensive.

An infected lymphatic gland may become the source of a general infection, if a communication be established between it and the general circulation, either directly by ulceration into a vein, or indirectly through the thoracic duct. Thus Weigert has demonstrated that in acute miliary tuberculosis the thoracic duct is frequently tubercular, and by this path the tubercle bacilli reach the systemic circulation. They may then be carried away as bacterial emboli into distant parts, or they may multiply in the circulation, producing a hæmic infection. It is a curious fact that most morbid anatomists are satisfied in cases of acute miliary tuberculosis when they are able to demonstrate a caseous focus somewhere in the body, but they do not attempt to find the actual point of entrance into the systemic circulation.

The diffusion of the organisms which are responsible for the primary infection may, however, be brought about by the blood-vessels. Here we must distinguish two methods of dissemination.

(1) The *venous channels*, being eroded or laid open during and by the process of histolysis, a few or many microbes may find an entrance into the blood-stream; and then one of several things may happen: (a) The blood may possess sufficiently strong bactericidal power to cope with and destroy the organisms which have found their way into the vessel. This is the most fortunate termination of what might be a serious accident, for no evil will come of this hæmic invasion. (b) The micro-organisms may escape the deadly action of the blood, and, without multiplying in the circulation, they may be carried away as bacterial emboli through the heart into the systemic, pulmonary, or portal circulation till arrested at some narrow point. Here, if suitable conditions exist, they will gain a footing and form a fresh focus of inflammation or infection—*i. e.* we have a *metastatic or secondary focus*, due to the arrest of a bacterial embolus. If conditions at the point of arrest are not suitable, the micro-organisms as a rule will perish, but on the other hand they may remain latent at this point, and survive, inoffensively and harmlessly, until conditions arise which awaken them into dangerous activity. Thus, in typhoid fever organisms after death are almost constantly found in the bone marrow; and we must assume that they have reached the blood from the seat of ulceration, and have been carried away through the heart into the bone

marrow, where they enjoy an existence of inactivity till perhaps an injury to the bone, or a general tissue depression, resuscitates them into aggressive virulence. Writers generally pay too little attention to this method of diffusion by bacterial emboli, the minutest of minute emboli. (c) The micro-organisms may find the blood so impoverished that its bactericidal power has vanished, and they may then multiply in the circulation and produce a general hæmic infection, *i. e.* a *septicæmia*. In septicæmia we find micro-organisms in the circulation, where they multiply and thrive and produce their poisons, so that we obtain both a hæmic infection and a hæmic intoxication. A little blood removed with a pipette or syringe according to the precepts of bacteriology, and sewn on or in a nutrient medium, will give rise to a copious growth of the organisms contained in it. Nothing should or must be called septicæmia, unless there be general hæmic infection, whatever be the clinical prejudice. Our knowledge of pathological bacteriology has sufficiently advanced to make this demand. Any inflammatory infection may end in this untoward manner; and as examples may be mentioned pneumonia, typhoid fever, sore throats, acute necrosis, erysipelas, cellulitis. It is, therefore, advisable when symptoms point to serious complications to thoroughly examine the blood for hæmic infection; it enables us to pronounce upon a most serious prognosis, or in these days of serum therapeutics to attempt more thorough measures, based upon the bacteriological observations.

A general hæmic infection may, however, start in a round-about way. A bacterial embolus may enter a venous channel, and may find its resting place in one of the cardiac valves; and if the organisms should find the conditions necessary for growth there, an infective endocarditis must result. From the infected valve micro-organisms may pass into the circulation till the hæmic infection is complete. Again, any other metastatic focus, however produced, either in the manner already described or in that to be shortly described, may become the starting-point of a hæmic infection or an infective endocarditis, which generally implies hæmic infection.

Instead of bacterial emboli we may have infected fibrinous or tissue emboli. The veins at the seat of inflammation become plugged with fibrin, but this thrombus is soon invaded by micro-organisms, and thus becomes an *infected thrombus*. From this infected and contaminated mass fragments may be carried off as emboli by the blood current, but these emboli are infected also. They are carried to the right side of the heart, and may become fixed on the tricuspid valve and form the starting-point of an infective endocarditis. If not arrested there the embolus is carried into the lung, and may become lodged in some arterial branch, producing an *infected infarct*. The embolus, however, may be carried right through the lung into the left ventricle, and thence may enter the aorta and the

systemic circulation, or it may become fixed on the mitral valve. It is natural that when an infective endocarditis appears micro-organisms should readily find their way into the general circulation, and from the diseased valve bacterial or infected fibrinous emboli may enter the circulation and produce fresh metastatic foci or general hæmic infection. It stands to reason that the presence of metastatic abscesses, clinically called *pyæmia*, does not of necessity imply that micro-organisms are found in the blood,—that is, that there is a septicæmia.

(2) The micro-organisms may be carried away from the seat of lesion by the *arterial channels*. A small artery, for instance, although the elastic coat is very resistant against infections of all kinds, may be attacked and pierced by the micro-organisms, which may then be carried away as bacterial emboli towards and into the capillary area.

For the sake of completeness we must also mention the process described as *sapremia*. Here we have an inflamed area which becomes invaded by saprophytic and putrefactive organisms. The latter thrive on dead or dying tissues, but cannot grow on healthy or living tissue, and sapremia therefore commonly accompanies gangrenous or ulcerated lesions with which there is much necrosis. The microbes produce their toxins, which are absorbed and thus are responsible for the serious symptoms of sapremia. When the necrotic area is removed the bacteria disappear, because they cannot grow in living tissues, and the symptoms of sapremia soon subside, and the patient generally makes a speedy recovery. These organisms cannot grow on healthy tissues, and therefore septicæmia or hæmic infection is never produced by true saprophytes. In gangrene and in childbed sapremia is often developed, and mostly easily removed by radical measures.

In the following table I have attempted to tabulate the various paths of dissemination in the form of a scheme:

Infection of an ulcerating or necrotic area by saprophytic organisms, accompanied by general intoxication with their products.	} = Sapremia	} Recovery after radical removal, so long as the amount of toxins absorbed was sublethal.													
Infection of an inflammatory area by parasitic organisms, accompanied by general intoxication with their products.	} = Septic infection and intoxication	} <table border="0"> <tr> <td rowspan="2">} Lymphatic infection</td> <td rowspan="2">} <table border="0"> <tr> <td rowspan="2">} Thoracic duct</td> <td rowspan="2">} <table border="0"> <tr> <td>Direct extension (Cellulitis). Glands (Buboes).</td> </tr> <tr> <td>Septicæmia. Multiple emboli.</td> </tr> </table> </td> </tr> <tr> <td>Hæmic infection = Septicæmia. (Metastatic infection) (Pyæmia).</td> </tr> </table> </td> </tr> <tr> <td>Bacterial emboli</td> <td rowspan="2">} <table border="0"> <tr> <td>Infected fibrinous emboli</td> <td> <table border="0"> <tr> <td>Metastatic infection (Pyæmia).</td> </tr> <tr> <td>Hæmic infection.</td> </tr> </table> </td> </tr> </table> </td> </tr> </table>	} Lymphatic infection	} <table border="0"> <tr> <td rowspan="2">} Thoracic duct</td> <td rowspan="2">} <table border="0"> <tr> <td>Direct extension (Cellulitis). Glands (Buboes).</td> </tr> <tr> <td>Septicæmia. Multiple emboli.</td> </tr> </table> </td> </tr> <tr> <td>Hæmic infection = Septicæmia. (Metastatic infection) (Pyæmia).</td> </tr> </table>	} Thoracic duct	} <table border="0"> <tr> <td>Direct extension (Cellulitis). Glands (Buboes).</td> </tr> <tr> <td>Septicæmia. Multiple emboli.</td> </tr> </table>	Direct extension (Cellulitis). Glands (Buboes).	Septicæmia. Multiple emboli.	Hæmic infection = Septicæmia. (Metastatic infection) (Pyæmia).	Bacterial emboli	} <table border="0"> <tr> <td>Infected fibrinous emboli</td> <td> <table border="0"> <tr> <td>Metastatic infection (Pyæmia).</td> </tr> <tr> <td>Hæmic infection.</td> </tr> </table> </td> </tr> </table>	Infected fibrinous emboli	<table border="0"> <tr> <td>Metastatic infection (Pyæmia).</td> </tr> <tr> <td>Hæmic infection.</td> </tr> </table>	Metastatic infection (Pyæmia).	Hæmic infection.
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To give a few examples. We may have a suppurative otitis media. The pyococcal infection may remain localised, or it may spread to the brain, leading to a temporo-sphenoidal or cerebellar abscess, or it may spread into the lateral

sinus or into the jugular vein, and thence into the right side of the heart, producing an infective endocarditis and general hæmic infection (septicæmia). This may be accompanied or followed by multiple embolism, with metastatic deposits in the lungs, spleen, and elsewhere (pyæmia).

Again, we may have a case of typhoid fever with ulceration in the intestines, and in the ulcers, besides the typhoid bacilli, streptococci may be found. The latter may be swept away by the blood-stream, and may be deposited in the bone marrow, and under suitable conditions may produce a secondary lesion there, an osteomyelitis, or on entering the blood stream they may multiply there, and the result is a general hæmic infection or a septicæmia, in some rare cases with infective endocarditis and secondary deposits in the body (pyæmia). Occasionally the typhoid bacilli themselves are carried away by the blood-stream, and they may then be got rid of by the urine, or may be stored up in the bone marrow, where, under provocation, they may produce a typhoidal osteomyelitis, or they may multiply in the blood, the result being a true typhoidal septicæmia—an unusual condition. In croupous pneumonia also similar processes may be noted. Thus the pneumococci may extend locally into the pleura or pericardium, the effect of such extension being a pleurisy or pericarditis; or a few cocci may be carried away by the blood into the meninges or endocardium, producing a metastatic meningitis or endocarditis without the blood itself becoming infected, or a hæmic infection may occur directly from the lungs or indirectly through the endocarditis. In the latter case pneumococci will be found in the blood, and there may be multiple metastatic foci of a suppurative nature. It is important to keep these dangers of inflammation in mind.

There is one other point we must consider, viz. the anatomical distribution of the metastatic or pyæmic foci. Even a casual observer will notice that when the primary focus is in the area of the pulmonary or the systemic circulation the liver generally escapes the metastatic dissemination. If a pulmonary infective lesion be followed by pyæmia, we find metastatic deposits mainly in the systemic, but occasionally also in the pulmonary vascular area. If a systemic infective lesion is followed by pyæmia, we find, as a rule, metastatic deposits mainly in the pulmonary, but frequently also in the systemic vascular area; in either case, however, except on the rarest occasions, the liver escapes. Yet pyæmic deposits in the liver (*portal pyæmia*) are often observed in the post-mortem room, and we find that in such cases the primary focus is always in the portal area, *e. g.* generally in the large or small intestines. An embolus is carried up by a venous radicle of the portal system and enters the portal vein, and is finally arrested in the terminal distribution of this vein. The cause of portal pyæmia is, therefore, a primary focus in the portal area; but it is erroneous to imagine that such a focus may not produce a metastatic deposit in the systemic or pulmonary vascular area. A

little reflection will show that a minute bacterial embolus may pass through the entire portal zone into the vena cava, and thence into the right side of the heart, to be deposited in the lungs or in the systemic peripheral area. Similarly, an embolus may be carried through the systemic circulation into the liver.

The following table will serve to summarise these considerations:

<i>Primary focus.</i>	<i>Metastatic deposits.</i>
Pulmonary area	{ Systemic area. (Pulmonary area.)
Systemic area	{ Pulmonary area. (Systemic area.)
Portal area	{ Hepatic area. (Pulmonary area.) (Systemic area.)

General hæmic infection may owe its origin to a primary focus situated anywhere, whether in the pulmonary, systemic, or portal area; and when a general septicæmia has developed, metastatic deposits may appear in any region of the blood-vascular system, because the arteries may carry the organisms indiscriminately over the body.

Of particular interest is septicæmia without recognisable local infection, *i. e.* idiopathic, or, better, *cryptogenic septicæmia*. A primary focus is not found, yet pathogenic bacteria are found in the blood and organs. The organisms must have found access to the blood from the respiratory or alimentary tract, or from the skin—parts always in contact with bacteria. A slight loss of substance, such as an abrasion, is sufficient to open the portal; and, further, it must be remembered that the adenoid structures of mucous membranes are, even in the normal state, but scantily and incompletely covered by epithelium. It is easy for a minute superficial lesion to escape detection when we use methods which, if we consider the size of a micro-organism, are coarse.

A Note on the Best Method of Closing the Wound after Abdominal Section.

By WILLIAM J. GOW, M.D., Assistant Physician-Accoucheur to St. Mary's Hospital, and Obstetric Physician to the Royal Hospital for Women and Children.

SINCE the details of antiseptic surgery have become more widely appreciated and practised the immediate risk to life from the performance of abdominal section has become extremely small. But nevertheless the necessary incision may leave a weak spot in the abdominal wall, which may be a source of infinite discomfort and distress to the patient and a reproach to the surgeon, unless sufficient care be taken at the time of the operation. The occurrence of hernial protrusions from the scar tissue yielding gradually to intra-abdominal pressure is by no

means infrequent, though it is not easy to estimate the actual frequency. Now a hernia of this kind is a very serious matter, because no mechanical apparatus is of the slightest use to keep it back. A ventral hernia which results from yielding of the scar may attain a very large size, and in some cases is big enough to hang down between the patient's legs. Such swellings are always very tender to the touch, and generally give rise to a great deal of pain. The skin over them may ulcerate, and the patient's life is rendered miserable. Cases of such severity are perhaps not very common, but slighter cases of ventral hernia are not to be regarded lightly, inasmuch as they prevent the patient from engaging in any active or laborious pursuit. The scar may yield equally from end to end, or more commonly at one or two points only. To dispatch a patient safely home at the end of three or four weeks after a big abdominal operation is no doubt highly satisfactory, but the responsibility of the operator does not end here. The occurrence of a ventral hernia is a disaster of the first magnitude, and therefore every possible precaution should be taken to prevent such an accident from happening. To realise how this may best be accomplished we must remember that it is upon the firm union of the aponeurotic layer of dense white fibrous tissue that the subsequent integrity of the abdominal scar depends. The first rule, which should never be forgotten, is that the abdominal incision must not be a single inch longer than is absolutely necessary. In cases of abdominal hysterectomy for fibroids the length of the incision will depend on the size of the tumour, but in the case of ovarian cysts it is seldom necessary for the incision to be more than three inches long, even although extensive adhesions are present. For the removal of suppurating tubes and ovaries an opening big enough to admit two fingers is all that is required, and no advantage whatever is gained by an incision longer than this. Lawson Tait long ago pointed out that in tubal operations it is by the sense of touch alone that adhesions are separated, and that for this purpose two fingers only are required. Some operators, when difficulties arise, proceed to enlarge the abdominal incision to get what they call a little more room, but probably merely to obtain a change of ideas. It is not, however, on the making of the incision, but on the closing of it that I wish to speak.

The two chief methods employed for closing the wound are by (1) suturing *en masse* and (2) suturing in layers. In the first case each suture passes through skin, fascia, and peritoneum on both sides, and is tied on the surface, whilst in the latter case peritoneum, fascia, and skin are each sutured separately, and the sutures which unite peritoneum and fascia respectively are left buried. The method of suturing *en masse* is the one that is most commonly employed, but it is not a safe one, as by this method we cannot ensure the exact coaptation and firm union of the cut edges of the aponeurosis. No doubt a perfectly sound scar may result, but this is by no means always the case, and there-

fore this plan should be entirely given up. The ultimate welfare of the patient largely depends on the way the incision is closed, and therefore too much pains cannot be taken over this part of the operation. If the abdominal walls are sutured in layers, a firm unyielding scar will be obtained. A better plan still, and one that I have used extensively for more than a year, is to proceed as follows:—Interrupted silkworm-gut sutures, three to the inch, are introduced in the ordinary way through the whole thickness of the abdominal wall, taking up skin, fascia, muscle, and peritoneum. When the requisite number have been passed all sponges are removed from the peritoneal cavity, and the assistant makes traction on the free ends of these sutures, so as to prevent any omentum or intestine from slipping into the wound, or between the loop of the sutures, as might possibly occur if they were left slack. By means of a curved needle fixed in a Hagedorn's needle-holder the aponeurotic layer is accurately united by a series of interrupted silkworm-gut sutures which are tied and cut short as they are passed. They are introduced in the intervals between the points where the other sutures penetrate the fascia, and about five or six are necessary to close a three-inch incision. The first or main series of sutures are now tied, and the procedure is complete. The application of adhesive strapping for the purpose of keeping the parts in apposition and promoting union is quite useless and very uncomfortable for the patient.

This plan, which is a combination of the two methods above described, has certain advantages over the method of uniting each layer separately. In the first place it fulfils all the necessary requirements for the formation of a firm cicatrix, because it ensures perfect coaptation of the aponeurotic layer, which is the only layer of importance from a mechanical point of view. The other sutures which passed through all the layers of the abdominal wall can be fully relied on to bring peritoneum and skin into apposition, as well as to further assist in the union of the aponeurosis. Besides, when these latter sutures are tied all oozing from the cut surface is controlled, and any blood which may already lie between the surfaces is squeezed out. This plan takes rather less time than suturing each layer separately, and avoids the risk of blood-clot being left sandwiched between the different layers of tissue, which may easily occur if peritoneum, fascia, and skin are each united separately. It is true that blood under these circumstances is generally absorbed without causing any trouble, but if it be necessary to introduce a drainage-tube into the abdominal cavity, pus might easily track up between the different layers. In my own practice this method has given excellent results. The buried fishing-gut sutures cause no trouble whatsoever, and the others are removed in two detachments on the eighth and twelfth day respectively. It only takes three minutes longer to put in the aponeurotic sutures, and the additional security it gives is very great.

One word in conclusion on ventral hernia. This condition may be cured by operation, but the operations practised for its relief are not always as satisfactory as could be wished. Inside the sac of the hernia adherent omentum is always, and adherent intestine is sometimes found, and therefore the incision must be made with due care. In performing such an operation it is not sufficient to cut away the redundant skin, and to refresh and then unite the edges of the opening. Before attempting to close the wound it is necessary to find and isolate the aponeurotic layer, and then to unite it by separate sutures; and therein lies the whole secret of success. It is by no means very easy to do this, but unless it is found and united the scar is almost certain to yield again.

Some Rectal Diseases.

By F. C. WALLIS, M.B., F.R.C.S., Assistant Surgeon to Charing Cross and St. Mark's Hospitals.

III. HÆMORRHOIDS (*continued*).

THE after-treatment in cases of hæmorrhoids is of great importance, and the details in connection with it must never be omitted.

Pain is the earliest fact which demands treatment, and from the patient's point of view it is a serious matter.

It has been mentioned that when the sphincters are well dilated the pain is not so acute or long lasting as it was formerly, before this was done.

The amount of pain will depend mainly upon two factors: (1) the disposition of the patient; (2) the condition of the internal sphincter.

Patients who are neurotic, "high-strung," or inclined to "give way" are much more liable to feel and exhibit the feelings of pain after an operation for piles than after any other operation in surgery.

The internal sphincter, when well developed, as in a muscular man or in a patient who has also a fissure of some standing, even when well stretched has paroxysmal contractions for some hours after the operation.

On the other hand, a patient with badly prolapsed piles, which have weakened the sphincter, has scarcely any post-operative pain. The levatores ani are also factors in causing pain from paroxysmal contraction.

There are various methods employed for dealing with the pain.

Some insert a morphia suppository before the patient leaves the table; others give opium pills, commencing as soon after the operation as the patient can swallow. Others, again, give no opium at all.

The treatment usually adopted at St. Mark's is to give from fifteen to twenty minims of the Tinct. Opii soon after

the operation, and then to give the following draught every two hours until the quantity of opium given amounts to seventy or eighty minims; after which it is gradually discontinued:

R	Liquoris Ammonii Acetatis	...	...	5j.
	Tincturæ Catechu	...	...	5j.
	Tincturæ Opii	...	...	℥x.
	Tincturæ Cardamomi Compositæ	...	...	5j.
	Aquam Cinnamomi	...	ad	3j.

This draught also has the effect of confining the bowels for the first three or four days, which is a point aimed at in the after-treatment of these cases.

The plan mentioned by Allingham of applying hot sponges over the sacrum is, I believe, very comforting to the patient.

Diet should be quite light, and as little as possible should be given during the first twenty-four hours. Small quantities of hot water may be given if much sickness occurs. About two ounces of strong black coffee without sugar will be found efficacious. After this, soup, beef tea, boiled fish, and milk puddings and the like may be given, but in sparing quantities, until the bowels have acted.

Retention is sometimes troublesome, especially in men. Attempts should be made by the patient to pass urine lying on his side with a hot sponge over the pubes; failing this, he should try kneeling up in bed. If this does not succeed, a soft full-sized catheter must be passed, care being taken that the instrument is surgically clean.

On the third or fourth night, according to the fancy of the surgeon, and sometimes depending on the condition of the patient, a strong purge is given, which is sometimes aided by a warm oil enema.

It is necessary that the purge should be one strong enough to do away with any resistance on the part of the patient.

Two of the compound calomel, colocynth, and hyoscyamus pills are as good as any other, and these may be followed by an enema if necessary.

The patient may sit out on a night-stool, unless for some special reason it is not thought advisable to do so; but it must not be forgotten that this first action of the bowels is always painful, sometimes extremely so, and patients are apt to get very faint. It is therefore necessary that someone should be near at hand in case help is wanted to support the patient back to bed.

After this first action of the bowels care should be taken that constipation does not occur, and some mild laxative, such as a drachm of Conf. Sennæ, or equal parts of this and the Conf. Sulphuris, may be given most nights.

A little blood may be passed in the first stool, but only a slight amount, and it is of no significance. The diet may now be increased, and the patient as a rule passes the remaining period of his convalescence in comfort.

With regard to local applications and dressings, there are various methods by means of which these are carried out.

Some do not remove the original dressing until the time when the bowels first act. Others dress the part every day, commencing the day after the operation. Another method is to remove the outer dressing, leaving the inner pad untouched, except that it is well moistened with some antiseptic lotion.

On the whole this last plan is perhaps the best. It permits the bandage to be loosened, and if there has been any hæmorrhage, and the dressings are hard and caked, they can be removed. It is a pity to remove the dressings next to the wound unless absolutely necessary (especially if no plug has been introduced into the rectum), as the proceeding is apt to be painful, and no good point is served in so doing.

If a solution of 1-1000 biniodide or 1-500 perchloride solution is allowed to run over and soak into the pad this is all that is necessary. There are occasions, of course, when both inspection and examination are urgently necessary; these will be discussed later.

The bandage should be looked at a few hours after the operation, especially where it lies over the iliac crests, because, owing to the way the bandage is tightened up for the sake of pressure, it is apt to get "roped," and I have seen quite bad bruising occur from this.

After the bowels have acted, the parts should be washed with some aseptic lotion,—perchloride of mercury is the one in common use at St. Mark's,—and it will be found that when the buttocks are gently separated, the area of operation is exposed, owing to the former stretching of the sphincter.

This washing should now be a daily act, and should always be performed after the bowels have acted.

It is the practice with some surgeons to aid the separation of the ligatures by pulling on them each day. I cannot think that this really helps; it may cause pain, and perhaps set up a certain amount of hæmorrhage. Moreover, it disturbs the granulation tissue around the ligature, which in septic wounds, as these all are, is an unwise thing to do. The ligatures separate on about the eighth day, leaving a healthy ulcer which quickly heals.

If a large proportion of the circumference of the bowel has been tied up at the operation, it is as well after the ligatures have separated to occasionally pass the finger into the bowel, that no undue contraction may occur in the healing.

Towards the end of the second week, when everything has been going well, patients are apt to get restless, and wish to get up and walk, &c. It is necessary to be quite firm with regard to this, and to absolutely forbid anything like standing about or walking (except from one room to another) until the ulcers are quite healed, and this rarely takes place before the end of the third week. The horizontal position must be the one mainly adopted until the healing is quite complete.

Unless this plan of treatment is carried out the ulcers may take weeks to heal; they may even become chronic, and if

this happens pruritus ani is nearly certain to occur, to the disgust of everyone concerned.

When the ulcers are not healing as rapidly as they might, they should be stimulated with nitrate of silver, or "red lotion," or some of the various ointments, which latter, personally, I rarely use.

I have lately used a preparation of binoxide of hydrogen in these cases with excellent results. The preparation has an unfortunate name, "Eau Maiche," and is said to cure everything, including, of course, cancer. I tried it with every sort of unbelief, but after using it for some months I can recommend it strongly for all non-malignant ulcers. But of course its effect on anything malignant, beyond keeping the ulcers clean, is nil!

Hæmorrhage after an operation for piles is quite unusual; but when it occurs it causes a great deal of alarm, and may be serious in certain cases. In combating this trouble there must be no half measures, and a definite plan of procedure must be thoroughly carried out.

The bleeding may arise from some small vessel not being tied where an external hæmorrhoid or redundant skin has been removed. This is easily controlled by pressure.

If the bleeding is within the bowel the patient will soon exhibit all the signs of internal hæmorrhage, and in addition will complain of a sense of fullness of the rectum, and may when straining pass blood and clots. Under such conditions all dressings must be removed and the finger inserted into the bowel; if now the patient strains, a quantity of clot and liquid blood will be passed. Ice-cold water should be injected into the bowel, whilst pressure should be kept up on the bleeding spot with the finger if this is possible. This may stop the bleeding, but, as a rule, it is well not to rely on it; and the best plan is to give the patient an anæsthetic, and then thoroughly search for and ligature the vessel.

If this cannot be found the rectum must be plugged by passing up a sponge four or five inches, with a long double loop of silk attached, and a full-sized railroad catheter should be thrust through the centre of the sponge and introduced with it. The rectum below the sponge is now well plugged with wool soaked in perchloride of mercury solution, and increased pressure is made by pushing up the wool and pulling down on the silk loop which holds the sponge. By these means the whole area can be put under considerable pressure, and the bleeding will cease.

Gowland's tubes and Benton's hæmostatic bag are used for controlling hæmorrhage, but they are not always at hand when the emergency arises; and for this reason the above plan is the most practical.

Flatus and liquid feces will pass by the catheter, and the plugs may be left in for six or seven days without much discomfort.

Few cases of recurrent hæmorrhage will require plugging, as in almost every case the vessel offending can be found and tied.

Such, however, is not the case in secondary hæmorrhage, which, as a rule, takes place when the ligatures are separating in subjects whose tissues, from age or disease, have small recuperative power, or none at all.

Impaction of feces in the rectum is an occasional unpleasant complication occurring after operation, due mainly, no doubt, to the fact that, although the patient's rectum may have been emptied, the colon was still full, and soon filled the rectum. Patients suffering from this will have no action of the bowels, a sense of uneasiness locally, and if the colon is percussed it may be found to be dull. On examining the rectum it will be found to be considerably distended with hard feces. These must be broken up by the fingers and washed away by enemata.

A large number of well-to-do people are in the habit of dosing themselves every day with some form of natural aperient water, and these in particular are prone to get impaction after and apart from operation, because the constant use of the mineral water gets rid of most of the fluid part of the feces, and leaves behind a large amount of solid, which causes the trouble.

Contraction of the skin around the anus, and also stricture of the rectum, may follow on an operation for hæmorrhage. The contraction of the skin is due to skin being tied up in the ligature, or else to too much being cut away. It is best not to include the skin in a ligature at any time, and ordinary conservatism will prevent too much skin being removed by cutting. In fact, this sequela ought never to occur in an operation for hæmorrhoids which runs a healthy course.

A mild form of rectal stricture is apt to occur when a great deal of the mucous membrane has been removed, and the prevention of this wants care and patience. It is best overcome by the occasional passage of a bougie, or the patient may use his finger for the same purpose.

To speak of a septic condition of the bowel after a pile operation would seem to suggest that an aseptic condition is possible, which, of course, I do not mean; but there are cases—very few now-a-days—which do not run the ordinary smooth course described above; and these have definite symptoms, and they call for definite and urgent treatment to prevent worse disasters. Perhaps a case quoted will best illustrate this.

A H—, a married woman æt. 42, was operated on for piles, and four large hæmorrhoids were removed by ligature and some redundant skin cut away. The day after the operation the temperature rose to 101.6°, the day after that it was 102°, and on the third day it rose to 102.8°. From now on it gradually subsided, but did not reach the normal until the fourteenth day.

When the temperature was high the patient complained of much pain locally, and showed all the general signs of septic absorption. Fomentations were applied every three hours, and the bowel was gently syringed with perchloride solution

1—1000 two or three times a day. On examining the bowel it was found, even after eight days, to be acutely painful; and the mucous membrane was inflamed for two inches or more up the bowel. The patient was discharged six weeks after the operation, quite well, and has been seen since.

The rapid rise of the temperature and the *malaise* of the patient pointed undoubtedly to some septic intoxication, arising directly from the operation; and in all probability it was due to a ligature, which somehow had become foul.

The greatest care was necessary to bring about the ultimate good result; and, in fact, too much care cannot be taken in these cases. If they are neglected, the probable result will be a form of ulceration which occurs in connection with the rectum, most persistent in character, almost incurable, and in many cases ending in a long fibrous stricture below, with a steady progressing ulceration going on higher up the bowel.

I shall say more of this horrible form of ulceration in a future paper; but I can assure my readers I have not painted the picture at all too black with regard to the possible result of a neglected, clinically septic, operation wound of the rectum.

(To be continued.)

An Operation by Sir William Lawrence.

WE are indebted to Mr. G. F. Forster for the following reprint, apparently from the *Lancet* for 1829, which we venture to think will prove of interest to our readers:

James Marsh, æt. 55, was admitted into Darker's Ward, March 5th, labouring under calculus of the bladder, for the purpose of submitting to the operation of lithotomy.

The patient is six feet in height, immensely fat, and must weigh above 20 stones. His complexion is fair, and his general health appears to be, as he states it has always been, excellent. He came from the neighbourhood of Dover, and performed the journey in two days, in a carriage lent to convey him, by the gentleman who wished him to be treated by Mr. Lawrence. He has a wife, but no children. He has laboured under symptoms of stone for three years; those symptoms have gradually become urgent, and for the last 14 months he has been bed-ridden. He was sounded in the country, and assured of there being stone in the bladder. He seems to be a man of intelligence; and considers himself rather unfavourable for the operation, but is desirous of having it performed, either that his existence may be made a little more comfortable, or that he may be entirely freed from the woes and ills of this life. Notwithstanding his inordinate size, he declares himself to have been, for a long period, one of the poorest lived; that he has never taken any thing for breakfast except a little gruel, eating afterwards, in the course of the day, only a small portion of dry bread, with occasionally a little bacon, and never indulging in the use of wines, malt or spirituous liquors. Except his general healthy appearance, he exhibits nothing to encourage a hope that he will recover from the operation, especially should the stone prove to be of magnitude, or should any difficulty arise in the performance of the operation.

MARCH 10.—At 28 minutes past one, the patient was placed on the operation-table. Four minutes were occupied in tying and sounding him, and in preparing to make the incision. At twenty-eight minutes before two, Mr. Lawrence commenced the external incision with a double-edged scalpel, which was four inches long, and extended deep into the fat below the skin; with the fourth cut of the instrument he reached the staff, which was held by Mr. Earle. Billard's knife was then introduced into the wound, carried forward

to the staff without delay, conducted into the bladder, and this was followed by the usual gush of urine mixed with blood. The operator then withdrew the knife and staff, and introduced the forefinger of his right hand, with the extremity of which, and with the utmost difficulty, he was just able distinctly to touch the stone in the bladder. Withdrawing his hand, he carried forward the longest common straight forceps belonging to the hospital, with which he used great efforts to enlarge, by dilatation and laceration, the opening that had been previously made; he was, however, as he declared at the moment, utterly unable to lay hold of the calculus with them, even when introduced to their fullest extent. He withdrew them. Pausing for about ten or twelve seconds, he introduced the long straight forceps, which he had got made expressly for the *dernier ressort*. After they had entered the bladder, the operator turning them round and round, in a semicircular form, and opening and shutting them with apparently great force, considerably enlarged the wound, and was then able, by urging them forward as far as they would go, to lay hold of the stone. Continued great force, if not violence, was kept up in the extraction of the calculus. Almost immediately on laying hold of it, it slipped out of the forceps. Again it was grasped; and when it appeared to have been pulled a considerable way along the wound, unfortunately the forceps slipped off it again. A third time, and without the least delay, the operator caught it, and at length it was extracted, the operation occupying, from the commencement of making the incision to the extraction, seven minutes and a half. The bladder was then injected through the wound with warm water, as a few pieces of the stone were found to have been broken off, which brought away a very few fragments. The scoop was next introduced, but nothing removed by it. The patient was then instantly unbound, and a small quantity of wine and water administered. He shook hands with Mr. Lawrence, expressed his warmest thanks and gratitude, and was carried to bed.

From the commencement of the operation profound silence prevailed, broken only by the expression of Mr. Lawrence alluded to above, and a few ejaculations on the part of the patient. The perfect self-command, unshaken nerve, regular, bold, systematic proceeding of the operator throughout the operation, secured to him the greatest admiration; the ultimate extraction of the stone created universal satisfaction, and its enormous size, corresponding with the size of the poor man from whom it had been taken, occasioned the utmost astonishment. The bringing out of the stone resembled more the extraction of the head of a fetus by the use of the forceps, than of a calculus from the bladder. In shape it greatly resembled a large lemon, rather flattened at the side on which it had rested in the bladder; at one end it had a projecting point, similar in size and appearance to what is sometimes found at the extremity of a lemon, but which projection was afterwards unfortunately broken off in being handed through the theatre. Measuring the long circumference, it was exactly eight inches and a half, and the short six inches. It was stated to have lithic acid for its base, with a considerable deposition of triple salt forming around it. After the projection was broken off, and without the small pieces that were afterwards taken out of the bladder, it weighed four ounces seven drachms. It exhibited indistinct marks of having been adherent to the bladder.

The patient was ordered two grains of crude opium, which he took, and a common linctus to keep his mouth moist.

13.—Two o'clock, p.m.—Is lying on his right side. States that he slept well during the night, and a great part of the forenoon. Feels as well as he could have expected, after such an operation. "It was sharp work, sir," said the poor fellow, shaking Mr. Lawrence by the hand. "It was sharp work, my friend, indeed," replied Mr. Lawrence; "but you now are doing very well." "Thank you, sir," said the patient, "and I believe I shall do very well. If I am only allowed to be kept quiet; but there is a great noise in the ward which hurts me." The pulse is still irregular, and much the same as before the operation. The tongue is white (but not whiter than before the operation), and moist. The water has flowed freely through the wound.

The sister was directed to keep the ward quiet, and not to allow any person to go to the patient's bed except the dresser. If no symptoms come on requiring it, the patient is to have nothing given to him except small quantities of nourishing food, should he wish to take any. Should any urgent symptoms towards night require it, then give castor oil, and five or seven grains of the soap pill, with opium.

Nine, p.m.—At six o'clock the patient complained of uneasiness about the lower part of the abdomen, and in half an hour afterwards nausea, sickness, vomiting, and hiccup supervened, which have continued until now. The soap pill, with opium, has been given. Mr. Lawrence has been sent for to see him, and orders—calomel, four

grains, jalap, 12 grains, immediately. And then two table-spoonfuls of the following mixture, to be taken every two hours:—Sulphate of magnesia one oz.; carbonate of magnesia one drachm, mint-water eight oz.

Twelve o'clock.—Part of the above medicine has been given; but the stomach continues to reject every thing. The unfavourable symptoms are proceeding. The house surgeon has ordered 50 leeches to be applied to the abdomen immediately, and two grains of calomel, with one-third of a grain of opium, to be taken every three hours.

14.—Half-past five a.m.—Having continued in great pain, and suffered much, the poor man has just expired. No attempt to alleviate his distress proved in the least degree effectual. The bowels never acted. The last time they were relieved was by the injection on the morning of the operation.

EXAMINATION OF THE BODY EIGHT HOURS AFTER DEATH.

At half-past one the *post-mortem* examination was commenced by Mr. Lawrence, in the presence of Messrs. Earle, Lloyd, and a great number of practitioners and pupils.

The heart of an immense size. *In situ*, it seemed as large as a bullock's. When removed, the left ventricle alone was quite as large as a common heart. The orifice of the coronary vein was large enough to admit the little finger. The coronary artery perfectly healthy. The lining of the aorta of a rich creamy colour. The whole of the heart healthy, and exhibiting nothing to explain the irregularity of the pulse.

An Operation for Removal of the Rectum, Sigmoid Flexure, and Lower Descending Colon.*

By C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.,
Medical Officer to the Provident Branch of
the Plymouth Public Dispensary.

THE following is a description of an operation which I worked out on the cadaver a year ago, of which the practical application has been demonstrated by Treves,† who reports in the *Lancet* of January 29th, 1898, a successful case. It is applicable to those conditions of the upper rectum and sigmoid caused by stricture or cancer where, after removal of the affected portion of bowel, either from below or through an abdominal incision, it is most difficult or even impossible to restore the continuity of the divided bowel.

Preliminary left inguinal colotomy with complete division of the bowel is first performed, and the bowel between the colotomy opening and the anus emptied and rendered as aseptic as possible by frequent irrigation. As soon as the patient is in a fit state the second stage of the operation is proceeded with. After plugging the upper colotomy opening the lower opening is separated from the skin, its edges inverted and securely closed by sutures. The separation of the rectum from below is then done in the usual manner, the edges of the anus being inverted and stitched over, thus converting the bowel to be removed into a closed sausage-like tube. After separating the rectum as far as possible from below, the abdomen is opened by a free incision passing through the left rectus muscle. The meso-rectum is then ligatured, being first transfixed after the manner of an ovariotomy pedicle. This ligature includes the superior hæmorrhoidal vessels, which form the chief supply of the rectum, and also some lower branches of the sigmoid vessels. The high attachments of the rectum are next divided and the mesorectum cut through. The two closed ends of the bowel are now brought out of the abdominal incision, and the whole length of bowel removed by cutting through the mesosigmoid and lower mesocolon, the vessels of which are caught in pressure forceps and tied separately. The cut edges of the mesentery are afterwards closed by sutures, any enlarged glands being previously removed. All bleeding having been arrested,

* Read before the Plymouth Medical Society, March 23rd, 1898.

† In this case there was congenital narrowing of the rectum and sigmoid, and after removal of the bowel it was possible to bring down the transverse colon and fix it at the anus. Such a possibility is exceptional.

the abdominal and lower colotomy incisions are closed. The pelvis is packed with gauze from below, the ends being brought out between the buttocks.

The advantages of the operation are—

1. Small amount of hæmorrhage, the superior hæmorrhoidal vessels being ligatured before division, and the remaining vessels in the mesentery being brought to the surface as easily secured as they are divided.
2. Small risk of infecting the peritoneum, the whole bowel being removed as a closed tube.
3. Excellent drainage from the most dependent position.

A Case of Intussusception.

By ERNEST JEFFERSON, M.B., B.C. Cantab.,
M.R.C.S., L.R.C.P.

THE following case came under the care of Dr. Cockerton and myself on the second day after my arrival in the Orange Free State, and though perhaps it is of little surgical interest except to us and the patient, there are points about it in which it differs from a hospital case.

The first point is the early date at which the case was seen—some four hours only after the first attack of vomiting. The second is that, having no marble theatre handy, we were obliged to operate in the surgery, which, though convenient, can hardly be called aseptic. The only point in which our case resembled a hospital case was that we had an audience for our operation, but it was black.

The patient, a boy, was a native æt. one year. It was first seen at 9 a.m. on March 4th, when it had repeated vomiting (not of a fecal character), and a tumour was palpable in the right half of the abdomen, freely moveable, tender, and typically sausage-shaped. The child had passed nothing *per rectum*; its general condition was good. At 10 a.m. the patient was tried twice without success, the only effect being that the tumour shifted its position and almost disappeared under the ribs, and some blood-stained mucus was returned with the injection. After spending half an hour in obtaining the parents' consent chloroform was administered, and an incision made in the middle line below the umbilicus. On exploring the abdominal cavity with the finger the diagnosis of intussusception was confirmed, and a little gentle manipulation reduced it. It was of the usual ileo-cæcal variety, and the intussusception, though inflamed, appeared likely to recover. The wound was closed with five deep and two superficial catgut sutures, and dressed with iodoform gauze.

Except for a temperature of 101° on the evening of the second day, which sank to normal the next morning, and has remained so since, the child made an uninterrupted recovery. On dressing the wound on the fifth day it was found that primary union had taken place everywhere except for a point of suppuration round one of the superficial sutures.

The child's further career is without scientific interest. Three facts are demonstrated by this case of intussusception: firstly, that native children will stand more than their English brothers; secondly, that we owe our success largely to our having the case early; and thirdly, that it is possible to be aseptic even in a surgery.

Notes.

THE Mid Sessional Address of the Abernethian Society will be delivered on Thursday, July 7th, at 8 p.m., by Professor Kanthack, when it is hoped that there will be a large attendance. He has chosen as his subject "The Science and Art of Medicine." We take this opportunity of congratulating Professor Kanthack on his recent election to a Fellowship at King's College, Cambridge.

THE Junior Staff Concert has been fixed for Friday, July 8th, at 8 p.m.

THE Annual Dinner of the Eighth Decennial Contemporary Club of St. Bartholomew's Hospital will take place on Wednesday, June 29th, at the Café Royal, Regent Street, at 7.30 p.m. Those gentlemen who have not yet joined the Club, and wish to do so, are requested to communicate with Mr. Waring.

THE Seventh Decennial Contemporary Club will hold their dinner on Wednesday, July 6th, when the presentation to Mr. Bowlby will be made.

THE Annual Dinner of the Cambridge Graduates' Medical Club will be held at Limmer's Hotel, Conduit Street, W., on Thursday, June 30th, at 8 p.m.; Dr. W. H. Dickinson in the Chair. Each member may introduce two guests. Places will not be arranged beforehand. The Annual General Meeting will be held at 7.30 p.m., before the dinner. The Hon. Secretaries are Dr. Rolleston and Dr. Morley Fletcher.

SIR TREYOR LAWRENCE has undertaken the duties of Chairman of the Committee of Inquiry into the Distribution of the Prince of Wales's Hospital Fund.

DR. CALVERT has been elected Warden of the College and Secretary to the Medical School Committee.

MR. HOWARD MARSH will give the Cavendish Lecture before the West London Medical Society on June 24th. His subject will be "Growth as an Agent in (a) the Production and (b) the Removal of Deformity."

MR. LANGTON has been re-elected President of the Clinical Society.

DR. ANDREWES has been appointed Lecturer on Pathology to the London (Royal Free Hospital) School of Medicine for Women.

THE degree of M.D. at Cambridge has been conferred on A. Eichholz, C. E. Hedges, and A. M. Mitchell. H. D. O'Sullivan has taken the degrees of M.B., B.C.

WE regret that C. H. Barnes and J. H. Kemp were omitted from the list of those who passed Part I of the Final M.B. Examination at Cambridge in April.

At the recent examination for the Navy Medical Service H. W. Shewell passed in third, with 2539 marks.

THE Lawrence Scholarship and Gold Medal has been awarded to T. J. Horder.

THE Brackenbury Medical Scholarship has been awarded to Clive Riviere.

At the last election to Epsom College Horace Dewick Sawtell was successful, obtaining 8172 votes, which placed him second on the list. We are requested to thank those of our subscribers who helped to achieve this.

RUMOUR has recently been rife that the Christ's Hospital site was to be secured by the Midland Railway Company for a central station. Seeing that the Company's present approach to London cost them nine millions, the rumour sounds highly improbable, and we have very good authority for denying it altogether.

BART'S men are well to the fore in Calcutta just now, both in numbers and in the appointments held by them. Some of these we mentioned in our last number, and we now give a complete list:—Surgeon-Colonel T. H. Hendley, C.I.E., I.M.S., Inspector-General of Civil Hospitals, Bengal; Surg.-Lt.-Col. D. W. D. Comins, I.M.S., Inspector-General of Gaols; Surg.-Lt.-Col. G. S. A. Ranking, I.M.S., Surgeon-Superintendent, Presidency General Hospital; Surg.-Major Ronald Ross, I.M.S., on special duty investigating malaria; Surg.-Capt. F. P. Maynard, I.M.S., officiating 2nd Resident Surgeon, General Hospital, and Medical Officer and Superintendent of the Presidency Gaol; Surg.-Capt. O'Kinealy, I.M.S., on leave on medical certificate after enteric fever contracted during the Tirah Expedition; Surg.-Capt. R. Bird, I.M.S., Resident Surgeon and Officiating Professor of Physiology, Medical College (on privilege leave); Surg.-Capt. C. R. Stevens, I.M.S., Resident Surgeon, Eden Hospital; Dr. J. Neild Cook, Health Officer; Dr. E. C. Pettifer, Assistant Health Officer. With so many men there the prospects of the annual dinner on St. Bartholomew's day are this year very good.

PLAGUE has at length reached the capital of India, and the task of dealing with it rests heavily on the shoulders of Surgeon-Colonel Hendley and Dr. Neild Cook, who is the new Health Officer of the Corporation. It is a strange fact, but nevertheless true, that within a few days of the outbreak of plague the entire control of the conservancy establishment was transferred from the Health Officer to the Engineer to the Corporation.

THE following extract from the Debating Society's News in the magazine of the London School of Medicine for Women reads pleasantly:—"Miss — read a paper entitled 'Some Types of Women,' in which the weak points and excellent features in the characters of many of her acquaintances were alike held up to ridicule!"

THE "M.R.I." is the latest addition to the ranks of our contemporaries. It is the journal of the students at the

Manchester Royal Infirmary. Certainly the opening number is a bright one. The most entertaining article to the general reader is a consideration of the medical aspects of Falstaff, and imaginary post-mortem notes of his case. Incidentally it is of interest to note that the famous sentence, "he babbled of green fields," in the description of his death-bed scene, is a purely conjectural reading. Shakespeare's marvellous powers of observation often led him right when the orthodox faculty of the day was wrong. For instance, he knew the features of general paralysis of the insane long before the profession did.

It has been felt by many members of the staff that Ernest H. Shaw's long service as Museum Assistant should meet with some recognition on his departure for Cambridge. A subscription among members of the staff and teaching staff resulted in £23 5s., a cheque for which has been handed to him.

MR. BRUCE CLARKE has been elected an Examiner in Anatomy for the Conjoint Examination, and Mr. Lockwood has been elected an Examiner in Anatomy for the First Fellowship.

MR. D'ARCY POWER has been elected an Examiner in Physiology for the First F.R.C.S.

DR. T. W. SHORE has been elected an Examiner in Elementary Biology for the Conjoint Board.

Amalgamated Clubs.

CRICKET CLUB.

ST. BART'S v. R.I.E.C.

Our first match was played at Cooper's Hill on May 7th, and ended in an unlucky defeat for us by one run. Rose, the Hospital captain, was unfortunately taken ill, and was obliged to retire after batting for a few minutes. As he was unable to take any further part in the game we were deprived of his bowling as well as his batting. Bart's won the toss, and made 198. Sale and Greaves put on 78 runs for the second wicket, while Greaves and Brunner added 53 for the fourth wicket. Greaves hit well all round the wicket as soon as he got settled, while Brunner showed the prettiest batting of the match. As Rose had to retire at the fall of the ninth wicket, S. Leathe did not get an innings.

R.I.E.C. started badly, but Dickin, Adami, and Ferran, aided by faulty fielding, pulled the match out of the fire. When the last man came in ten runs were still wanted to win. With the game a tie an easy chance was given but not accepted, and the winning run obtained. Sale howled the last man next ball, and took in all six wickets for 42 runs. The ground fielding was very fair, but our catching will have to be much surer if we are to get the Cup.

SCORES.

ST. BART'S.

J. C. Sale, 1 b w, b Walsh ...	37
H. E. Scoones, b Farran, ...	0
H. S. Greaves, c Bowden-Smith, b Wood, ...	71
L. B. Bigg, c and b Walsh ...	2
F. E. Brunner, run out ...	38
E. Talbot, b Bowden-Smith	10
C. H. Turner, 1 b w, b Bowden Smith	3
Total 198	

R.I.E.C.

H. L. P. Walsh, c Turner, b Sale, ...	9
H. Tresawna, 1 b w, b Sale, ...	14
M. E. Nigel-Jones, c Boyle, b Sale, ...	9
G. N. Dickin, c Boyle, b Turner, ...	74
Rev. H. Bowden-Smith, b Greaves, ...	0
Total 199	

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Pank	21	4	59	0
Sale	22	8	42	6
Stanger Leathe	6	2	12	0
Greaves	21	6	34	3
Bigg	6	2	11	0
Turner	8	0	24	1
Talbot	9	0	7	0

ST. BART'S v. ESHER.

Played at Esher on May 14th. Esher had a very strong side, containing several well-known men, and on winning the toss scored 211 for nine wickets. Faulty catching was mainly responsible for this score, as both Hornsby and Mordaunt should have been got rid of before they had made many runs.

Our batting broke down terribly before the bowling of Mordaunt, who took seven wickets for 34 runs.—Rose, Bigg, and Whitwell alone getting into double figures.

SCORES.

ESHER.		ST. BART'S.	
M. M. Barker, 1 b w, b Rose	9	J. C. Sale, b Mordaunt	6
J. H. J. Hornsby, b Rose	52	F. E. Brunner, c Peachey, b Mordaunt	0
E. C. Mordaunt, c Pank, b Oldrey	52	H. S. Greaves, c and b Mordaunt	3
J. R. Head, c Whitwell, b Rose	9	E. F. Rose, c Mordaunt, b Hornsby	17
L. Wilson, b Oldrey	2	L. B. Bigg, c H. Peachey, b Hornsby	21
L. J. H. Roberts, b Oldrey	5	H. E. Scoones, 1 b w, b Hornsby	0
L. Martineau, c Bigg, b Pank	39	C. P. Oldrey, b Mordaunt	0
A. C. Macpherson, c Boyle, b Pank	22	H. E. Boyle, c Wilson, b Mordaunt	0
S. T. Hankey, c Boyle, b Pank	0	H. Whitwell, hit wkt., b Mordaunt	0
H. Fitzelarence, not out	4	H. Macpherson	29
H. G. Peachey, not out	11	H. W. Pank, c H. Peachey, b Mordaunt	7
C. B. Peachey did not bat.	—	J. M. Collins, c H. Peachey, b Mordaunt	9
Extras	6	C. H. Turner, not out	2
Total	211	Extras	3
Total 211		Total 97	

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Rose	22	8	37	3
Pank	20	5	53	3
Sale	10	3	30	0
Greaves	10	1	24	0
Bigg	10	0	29	0
Oldrey	13	1	31	3

ST. BART'S v. M.C.C.

Played May 21st at Winchmore Hill. Owing to rain, no play was possible before lunch, and so a definite result could not be obtained, the draw being in favour of St. Bartholomew's Hospital. We made 193 for eight wickets. Nearly every one got runs, Willett being top scorer with an excellent 61.

M.C.C. had a decidedly weak team, and had lost five wickets for 83 at the call of time.

Our fielding was much better. Scoones, Brunner, and Greaves (fielding as a substitute for the M.C.C.) all brought off beautiful catches, while Boyle is proving himself very useful behind the stumps.

SCORES.

Table with columns for St. Bart's and M.C.C. players and scores. Includes names like W. H. Randolph, J. A. Willett, and H. S. Greaves.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets. Lists bowlers like Pank, Willett, Greaves, Turner.

INTER-HOSPITAL CHALLENGE CUP.

1st Round.—St. Bart's v. Westminster.

Although not playing full strength, the Hospital won their first Cup tie on May 31st with the greatest ease. Westminster went in first, but only succeeded in putting together 61. Rose proved most destructive, taking five wickets for 21 runs.

SCORES.

Table with columns for Westminister and St. Bart's players and scores. Includes names like W. C. Nimmo, T. L. Bunting, R. G. Harvey.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets. Lists bowlers like Rose, Pank, Willett.

ST. BART'S v. KENSINGTON PARK.

This match was played at Winchmore Hill on June 4th, and ended in a crushing defeat for the Hospital. The Hospital were without Greaves, Pank, Sale, and Talbot; but, notwithstanding this, their display was most disappointing.

SCORES.

Table with columns for Kensington Park and St. Bart's players and scores. Includes names like C. S. G. Lloyd, T. G. Donaldson, P. Reynolds.

LAWN TENNIS CLUB.

We have received no news of this Club.

SHOOTING.

UNITED HOSPITALS RIFLE ASSOCIATION v. ROYAL INDIAN ENGINEERING COLLEGE, COOPER'S HILL. The above match was shot at Cooper's Hill on Saturday, June 11th, the Hospitals winning by 36 points. The following are the scores:

Table with columns: U.H.R.A., 200 yds., 500 yds., Totals. Lists shooters like T. H. Gandy, A. Pearson, C. de Z. Marshall.

R.I.E.C.

Table with columns: R.I.E.C., 200 yds., 500 yds., Totals. Lists shooters like C. F. Wilkins, A. C. Fleming.

Amalgamated Clubs Dinner.

THE Annual Dinner of the Amalgamated Clubs was held on Saturday, June 11th, at the Holborn Restaurant. Dr. Griffith, President of the Athletic Club, took the Chair, and among those present were Mr. Walsham, Mr. Bowly, Dr. Shore, Dr. Calvert, Mr. Waring, Mr. Berry, Dr. Fletcher, Dr. Drysdale, Mr. Furnivall, Dr. Morrison, Dr. Horne, Mr. F. C. Wallis, Mr. Heasman, and Mr. Colby. The attendance was not large, numbering about sixty; it is a great pity that the dinner is not much better supported than it is, for such a small gathering does not reflect much credit on the esprit de corps of Bart's men.

The first toast was "The Queen," proposed by the Chairman, and was received in the usual manner.

The Chairman (Dr. Griffith), in proposing the toast of "The Amalgamated Clubs," said that it was obviously the toast of the evening. He was quite convinced of the advantages of amalgamation. Formerly there was no organisation; each club was unsuccessful, most of them being unable to raise teams; each club was in debt; each new secretary had £60 or £70 to pay, the debt left by his predecessor, and he in his turn left a similar legacy to his successor.

Mr. C. Gordon Watson, in replying, said, "I think I rise to render an account of my stewardship. Gentlemen, my stewardship has been a comparatively easy post. My predecessors have done all the work in connection with starting the amalgamation of the Clubs. I refer to Mr. Bond, Mr. Woodbridge, and Mr. R. P. Brown; but, as our Chairman has just said, the support and encouragement which Dr. Shore and Mr. Bowly have given the amalgamation is immeasurable, and it is almost entirely through these gentlemen that we hold the excellent position we do now."

Mr. Watson then referred to the quotation from Horace, "Exegi monumentum æve perennius," and said that he was sure that the more applied to the Amalgamated Clubs, and that they would be more lasting than brass. (Prolonged applause.)

Mr. Eustace Talbot then proposed the health of "The Old Bart's Men." "Gentlemen, I rise to propose a toast which I am sure is very dear to us all. I only knew that I was to do this ten minutes before dinner, and I think you will all agree with me that it is somewhat disconcerting to have to make a speech on such short notice; it is very liable to spoil one's dinner, to upset everything—in fact, to burn the whitebait into a *bebe noir*."

Mr. Heasman, on rising to reply, was greeted with cheers. He said that all old Bart's men looked forward to this meeting on the cricket-field and at the dinner afterwards as one of the events of the year. He was very sorry that they had not made a better show on the field that afternoon; he felt sure, however, that they were making up for it at the dinner. He looked forward to the time when the members of the Present team would assist the Past, and thus, so to speak, turn the tables on themselves.

Mr. Langdon Brown, in proposing the health of the Staff, said, "Were I to say that this toast deserves the house, would, in journalistic phrase, be 'left sitting,' or more probably I should be left talking. On the other hand, were I only to say enough to com-

mend it to your approval I should make no speech at all, for I know that it already has your heartiest approval. Staff literally means support, and our Staff is indeed the support of the Hospital. As Sir Sidney Waterlow recently said, 'while we can secure the services of such men the future of the Hospital is assured.' Not only have we an excellent Staff ourselves, but Bart's men are also found on the staffs of nearly all the other London hospitals. A friend with a turn for statistics has calculated that of all the students who enter at the Medical Schools each year 65 per cent fully expect to come on the staff of their respective hospitals; of their parents 85 per cent are sure that their sons will do so; but that to estimate the number who actually do come on required a complicated investigation into the third place of decimals. All honour then to the men who have achieved that to which so many aspire. There is excellent authority for the statement that a house which is divided against itself cannot stand, and the prosperity of Bart's in the long run must depend on the cordial relations between the Staff and the students."

Dr. Shore said he was in the strange position of replying to the toast which Mr. Langdon Brown had proposed, although he was not a member of either surgical or medical Staff. This was the first (and he supposed the last) occasion on which he would do so, as he did not aspire to the dignity of the Staff, but was merely a humble lecturer. "I have," he said, "been pressed into service because the only members of the staff present are Dr. Griffith, who is your chairman, and Mr. Bowly, who has to reply later on another matter. Now the obvious thing that will be said is that the absence of the Staff indicates that they take no interest in the students' clubs. This is very far from being the case. The Staff, as they all know, took the greatest interest in all that pertains to the students. He would cite them an instance. After the cricket pitch had been laid at considerable cost—some £90—the Staff, as soon as they heard of it, without any suggestion being made to them, at once volunteered the money. (Loud cheers.) He was sure that they must know that the Staff were absent for very adequate reasons. In conclusion, in the name of the Staff he thanked them for the noble manner in which they had and always did drink the toast.

Dr. Griffith then called on Mr. Berry to say a few words. Mr. Berry said that he was in the same position as Dr. Shore, in that he was not a member of the Staff; and he presumed that that was the reason why he had been asked to reply to the toast. He thanked them all for the way in which they had received his name, and felt sure they would not expect more from him.

Dr. Drysdale then rose to make the presentation to Mr. Bowly. He said that it was felt by those associated with the various athletic clubs, both formerly and at present, that the occasion of Mr. Bowly's wedding should not be allowed to pass without recognition in some form of his many services on behalf of the Amalgamated Clubs. They were sure that there would be many who would be only too glad to show their appreciation in this way and in that belief they had been fully justified, for in a short space of time a sum of over £80 was received from past and present members. After consultation with Mr. and Mrs. Bowly this sum was expended in the purchase of a dinner service, a silver tray, and a claret jug. Dr. Drysdale concluded by hoping that Mr. Bowly's services in the future to the Amalgamated Clubs would be no less noteworthy than they had been in the past. He then made the presentation on behalf of the subscribers. Mr. Bowly's health was drunk with great enthusiasm and Highland honours.

In receiving the present Mr. Bowly thanked the company very sincerely for the compliment they had paid him, and said how gratified he was at the kindly appreciation they had shown of his work for the clubs. The secret of the presentation was so well kept that it was not till he was asked as to the disposition of the very considerable sum which had been collected that he had any knowledge of what was coming. In such a serious matter he thought a consultation was advisable, and a consultation was accordingly held, with the result they saw before them. He chose a claret jug that he might be reminded, in drinking other toasts, of the kind way in

which his health had been drunk that night; a dinner service to recall these pleasant dinners of the Amalgamated Clubs, and a silver tray as a suitable receptacle for an inscription to permanently record the event. Mr. Bowley finished with amusing anecdotes of the difficulties under which athletics were carried on at the Hospital in his student days.

Dr. Calvert proposed the health of the Chairman in a humorous speech, and Dr. Griffith suitably responded.

A lengthy musical programme had been kindly arranged by Mr. D. L. E. Bolton, and the proceedings were not brought to a close till a late hour.

Photographic Society.



THE Photographic Society of St. Bartholomew's Hospital held their annual exhibition on Wednesday afternoon, June 15th, in the Electrical Department. Dr. Lewis Jones exhibited a series of admirable skiagraphs, of which one of the most striking was a renal calculus seen *in situ*. There was also a good series of photographs illustrating cases. Dr. Russell had a curious exhibit; he has been able to show that by placing a sensitive plate over a surface on which there is any writing or drawing, and keeping it there for some time in the dark, it is quite possible to obtain a negative which may be fixed and made to yield prints in the ordinary way. He showed negatives of addressed envelopes, sketches, and newspaper cuttings in proof of this. Turning to the artistic department we noticed some beautiful photographs of Funchal and Mentone by Dr. Lewis Jones; some views, chiefly of Scotch scenery, by Messrs. J. P. and J. L. Maxwell; and a very successful picture of an avenue by Mr. Baisé. Mr. Tatchell's photographs of yachts were admired by all; other noteworthy features were Mr. R. T. Cooke's portraits of dogs, and Mr. Llewellyn Phillip's photograph of the Prior door at Ely Cathedral, in which the beautiful carving was thrown into strong relief.

The Bahere Lodge, No. 2546.



THE Installation Meeting of this Lodge was held in the Great Hall of St. Bartholomew's Hospital on Tuesday, 14th June, 1898, Bro. W. J. Walsham, the W.M., being in the chair.

Bros. Cecil Christopherson, Percy Vernon Dodd, and Henry Hind were elected joining members.

Messrs. W. J. C. Keats, Elmore Wright Brewerton, and Harold Burrows were elected members of the Lodge, and were afterwards initiated into Freemasonry by the W.M.

Bro. Walsham then installed W. Bro. T. G. A. Burns as W.M. for the ensuing year.

Bro. Burns appointed and invested his officers, Bro. Reece becoming S.W. and Bro. Gripper J.W.

A Past-Master's jewel was presented to Bro. Walsham as a mark of the very efficient manner in which he had conducted the business of the Lodge during the year. A vote of twelve guineas was confirmed from the Lodge funds to enable the Lodge to become a permanent member of the correspondence circle of the Quatuor Coronati Lodge. The report of the Audit Committee was received and adopted. It showed that the Lodge had a balance at the bank of £86 11s. 0d., in addition to a capital account of £450, invested in the names of four trustees.

Bros. Gilbertson, West, and Cross having duly served the

office of Auditors were appointed members of the Standing Committee.

Eighty-two members and their guests afterwards dined together at the Trocadero. Bro. Sir John Monckton, P.G.W., replied to the health of the Grand Officers. Bro. Edmund Owen, Deputy Master of the Sancta Maria Lodge, Bro. Beaumont, W.M. of the Chancery Bar Lodge, and Bro. Montgomery, of the St. George's Lodge, replied for the visitors. Bros. Reece and Gripper answered for the officers of the Lodge. Bros. West, Robinson, and E. C. Cripps shared the musical programme.

The Month's Calendar.

[Secretaries of Clubs, &c., are requested to co-operate in making this list as complete as possible by forwarding notices of forthcoming events to the Editor.]

JUNE.

- Wed. 15th.—Mr. Butlin's Clinical Lecture. Examination for Burrows Prize and Skinner Prize. St. Bart's C.C. v. Richmond C.C. at Richmond. St. Bart's L.T.C. v. Hornsey L.T.C. at Winchmore Hill.
- Fri. 17th.—Dr. Church's and Mr. Willett's duty. Dr. Gee's Clinical Lecture.
- Sat. 18th.—St. Bart's C.C. v. Hampstead at Hampstead.
- Tues. 21st.—Dr. Gee's and Mr. Langton's duty.
- Wed. 22nd.—Mr. Willett's Clinical Lecture. St. Bart's C.C. v. Ealing at Ealing. St. Bart's 2nd XI v. St. Thomas's 2nd XI at Winchmore Hill.
- Fri. 24th.—Sir Dyce Duckworth's and Mr. Marsh's duty. Sir Dyce Duckworth's Clinical Lecture.
- Sat. 25th.—St. Bart's C.C. v. Oxford University Authentics at Winchmore Hill. St. Bart's L.T.C. v. Clarence L.T.C. at Winchmore Hill.
- Tues. 28th.—Dr. Hensley's and Mr. Butlin's duty.
- Wed. 29th.—Mr. Walsham's Clinical Lecture. Eighth Decennial Dinner at Café Royal at 7.30; Professor Kautschack and Mr. Waring Hon. Secs.
- Thurs. 30th.—Cambridge Graduates Medical Club Annual Dinner at Limmers' Hotel at 8 p.m.
- JULY.
- Fri. 1st.—Dr. Lauder Brunton's and Mr. Walsham's duty. Dr. Hensley's Clinical Lecture.
- Sat. 2nd.—St. Bart's C.C. v. Wanderers at Winchmore Hill.
- Tues. 5th.—Dr. Church's and Mr. Willett's duty. Examination for Shuter Scholarship.
- Wed. 6th.—Mr. Marsh's Clinical Lecture. St. Bart's C.C. v. Hornsey at Winchmore Hill. St. Bart's L.T.C. v. Albemarle L.T.C. at Beckenham. Seventh Decennial Dinner.
- Thurs. 7th.—Abernethian Society Mid-Sessional Address by Professor Kautschack on "The Science and Art of Medicine" at 8 p.m.
- Fri. 8th.—Dr. Gee's and Mr. Langton's duty. Dr. Lauder Brunton's Clinical Lecture. Summer Concert given by the Junior Staff and Members of Musical Society at 8 p.m.
- Sat. 9th.—St. Bart's C.C. v. Cooper's Hill at Cooper's Hill.
- Tues. 12th.—Sir Dyce Duckworth's and Mr. Marsh's duty.
- Wed. 13th.—Mr. Marsh's Clinical Lecture.
- Fri. 15th.—Dr. Hensley's and Mr. Butlin's duty.

Reviews.

CLINICAL LECTURES, by W. Arbuthnot Lane. (London: Clinical Journal Office. 5s.)

This small volume of Mr. Lane's is worthy of careful reading, both by students and by those who have to deal practically with the

surgical problems which are here discussed; for although we cannot agree with many of the conclusions, and even of the premises, there is throughout the work much evidence of originality of thought.

In the first lecture various defects and affections of the naso-pharynx are discussed. The question of adenoids receives a considerable amount of attention, but we imagine few will agree with Mr. Lane in his remarks on the pathology of the condition, and fewer still with the statement that "operative procedure is unnecessary."

The new operation described in this chapter for the closure of cleft palate about the fifth week of extra-uterine life has, we believe, been tried twice in this Hospital with disappointing results.

The treatment of simple Pott's fracture by wiring forms the subject of another lecture. Here the hospital patient is regarded simply in the light of a wage-earning machine, and arguing from this view a good case for operative interference is made out. Other lectures deal with acquired deformities, hernia, treatment of fractures, and traumatic arthritis.

The last chapter on otitis media, though presenting nothing new, gives an excellent account of what now must be regarded as the only rational treatment for this very common surgical ailment—antrectomy.

SURGICAL PATHOLOGY AND PRINCIPLES. By Jackson Clarke, M.B. Lond., F.R.C.S. Longmans, Green and Co., London, New York, and Bombay.

In the introductory chapter the author is at some pains to explain the scope of his work, and lays great stress on the impossibility of studying pathology apart from clinical symptoms. In the book itself this very desirable union is very indifferently preserved. The author is apparently torn in the conflict between a desire for completeness on the one hand, and a regard for space on the other. This may be seen in the chapter on skin diseases, where many of the descriptions are so short as to be worthless; or, again, in the paragraph on leucocythæmia, where a wholly uninforming if not inaccurate account is given of the blood changes. Perhaps, too, it may account for a sentence on p. 285, where the inquiring student may read, "And many other modes of origin of suppurative peritonitis will occur to the reader." These bare patches occur with some frequency, and the book would have gained rather than lost by the omission altogether of portions so inadequately treated. The author is not always careful to avoid slovenly writing,—as, to give only one example, on p. 255, where in one sentence a hernia and its sac are confused.

The least desirable part of the book, however, in all respects is, we think, that dealing with inflammation and infective processes. On p. 62 there is hardly a sentence to which exception cannot be justly taken. Ptomaines are not produced by putrefactive organisms alone, nor is the term toxin in its application restricted to ptomaines, though as the sentences stand they convey that meaning. Proteins are not separated from toxalbumins by the fact that they are not coagulated by heat. The author cannot mean, though his words imply it, that pyæmia may be a phase of any general infection. Diphtheria is chosen as a type of a pure intoxication, and is contrasted with alcohol—a most unfortunate example. True, the local disease is mentioned, but no care is taken to point out that so far it is a true infection.

The account of immunity is very poor, and far too much stress is laid on the phenomena of phagocytosis. It would be easy to multiply examples if sufficient had not been said to prove that the book is quite unsafe for students. Parts of the book are on the whole excellent,—as, for instance, the section on diseases of the intestine; and the illustrations and diagrams are for the most part good; but evenness of treatment and safety are essential in text-books, and we think these qualities are wanting.

INTRODUCTION TO THE STUDY OF ORGANIC CHEMISTRY. By John Wade, B.Sc. (London: Sonnenschein and Co.)

This text-book will meet the needs of candidates for the London Intermediate M.B. under the new syllabus. The subject is treated in a very original manner; every statement is based upon experiments which are very carefully described. The necessary laboratory notes are in an appendix.

Part I begins with a study of alcohol and acetic acid and other typical substances. In this study the student is introduced to the theory of molecular structure and the hypotheses on which they are based. Not until the end of Part I do we meet with the hydrocarbons.

Part II deals with the more complex aliphatic compounds. The sugars are fully described, and their constitution carefully considered. The recent work on the synthesis of uric acid and the ureides finds a place in this section.

The benzenoid compounds are described in Part IV. Here, again, the arrangement is not that usually followed. The constitution of

benzene is not discussed until the student has become acquainted with a considerable number of substances.

Noteworthy features of the book are the charts illustrating the syntheses and transformations of various classes of substances; these must prove of great assistance both to students and teachers. Many of the laboratory notes are excellently adapted to the time and material at the disposal of a medical student.

The book is full of information, and throughout is very free from errors. It is unfortunate that only one type of print has been used. The illustrations are reproductions of photographs of actual apparatus, and though very realistic, lack in consequence somewhat of clearness.

SYNOPSIS OF THE BRITISH PHARMACOPEIA, 1898. Compiled by H. Wippell Gadd. (London: Baillière, Tindall and Cox. Bristol and Exeter: Evans, Gadd and Co. Paper covers, 6d.; cloth, 1s.)

Now that the new Pharmacopœia is an accomplished fact, it behoves us to acquaint ourselves with the alterations speedily. The increased strength of the tincture of nuxvomica and of belladonna will be pitfalls for many unwary ones; the different composition of the compound tincture of chloroform and morphine, containing four times more morphine than its predecessor, will call for care. The busy practitioner will at first find it difficult to carry all these changes in his head, and this neat little synopsis will, we are sure, relieve him of much anxiety. It is readily carried in the pocket, and contains tables of the alterations, additions, and omissions, with explanatory notes, followed by a complete list of all the drugs in the new Pharmacopœia in alphabetical order, together with their characters or strengths (according to both the metric and imperial systems) and other particulars.

DISEASES OF THE NERVOUS SYSTEM. By C. E. Beevor, M.D., F.R.C.P. (Lewis's Practical Series.) London: H. K. Lewis, 1898. Price 10s. 6d.

It will at once be conceded that there is a distinct place for a practical handbook to this rapidly growing subject. Many men who have no time to read Sir W. Gowers' well-known monograph desire fuller information than is given in the ordinary text-books of medicine. We take it that the work before us is intended to fill this place; and Dr. Beevor by his clinical experience, and by his well-known researches with Mr. Horsley, is admirably qualified to undertake such a duty. Prejudiced, then, at the outset in its favour, we must admit to a certain sense of disappointment after reading the book. The best section is that on the methods of examining cases of nervous disease. Useful tables, such as that giving the groups of muscles supplied by different segments of the spinal cord, are added, and we have in practice found them very convenient. But the clinical side of the work is less satisfactory. Perhaps the section on meningitis strikes us as the most inadequate. The diagnosis of the various forms of meningitis is very meagre; the important question of temperature is hardly mentioned, so that the student could read the whole chapter without realising that tubercular meningitis is usually characterised by very moderate pyrexia until just before the fatal issue. And potassium iodide is not even mentioned among the drugs which should be tried in meningitis. Our impression is that Dr. Beevor has spoiled a promising book by feeling undue limitations with respect to space.

DISEASES OF WOMEN. By A. H. N. Lewers, M.D. (Lewis's Practical Series.) Fifth Edition. 10s. 6d.

The merits of this book to the student preparing for examination have been well recognised; the fact that this is the fifth edition, representing a total issue of 10,000 copies, proves that these merits are by no means unknown. The work is considerably enlarged—nearly 100 pages of new matter being added. The section on extra-uterine gestation is practically rewritten, and certainly much improved. We notice that the rather dangerous advice is still given to close up the abdominal wound completely, in the hope that the placenta may be absorbed. We had hoped to see this altered in the new edition. The operation for total vaginal hysterectomy is fully described. The vexed question of deciduoma malignum is treated of, and the author takes the view that it is a primary sarcoma of the uterus, and that pregnancy is not an essential antecedent. The plasmodial masses considered characteristic of the "syncytium" of this disease are described in other rapidly growing sarcomata,—for instance, in sarcoma of the testes, as shown by Dr. Eden and Prof. Kautschack. This certainly appears the most rational view in face of all the facts.

We have also received from Messrs. E. and S. Livingstone, of Edinburgh, THE BOTANIST'S VADE MECUM (2s.), by John Wishart, a synopsis intended chiefly as a guide to students during botanical excursions.

New Productions.

OKOL.—The Sanitas Co., Ltd, Bethnal Green, London, E. Okol is the trade name for a new disinfectant, which is an emulsion of an oil consisting in the main of acid hydrocarbon derivatives of the benzene series. It does not share in any sense the natural characters of the "Sanitas" disinfectants, nor is it possessed of their oxidising characters. From bacteriological examination it appears to be a powerful germicide and far more active than carbolic acid. Wool, gauze, and lint dressings sterilised with this substance can be obtained from the Sanitas Company.

"**VALTINE**" MEAT GLOBULES.—The Valantine Extract Co., Ltd., Eastcheap, E.C.

This is a convenient and portable form of meat extract, made up in gelatine capsules, which have simply to be dissolved in boiling water to provide a cup of beef tea. An additional advantage is the accompanying box of flavouring "peloids," which are supplied in three strengths—piquant, medium, and mild,—whereby the desired strength of flavouring is readily obtained. The whole thing is done up in a box which can be carried in the waistcoat pocket. The smaller globules can be swallowed whole, and are distinctly palatable. It is perhaps rather a pity that the name of the firm should be one already so prominently associated with a meat juice. We understand there is no connection between the two.

MESSRS. ARNOLD & SONS, Surgical Instrument Manufacturers to Her Majesty's Government, of West Smithfield, have received orders to supply the artificial limbs specially ordered by Her Majesty the Queen for the soldiers recently wounded in action, and the Queen has expressed a wish that these artificial limbs are to be of the most modern and best construction obtainable.

Appointments.

ALLEN, H., M.R.C.S., L.R.C.P., appointed House Surgeon to the Seamen's Hospital, Greenwich.

AUDEN, G. A., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the York Road Lying-in Hospital.

BENNETT, H. C., M.B.Lond., M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Staffordshire General Infirmary, Stafford.

BOWES, C. K., M.A., M.B., B.C.Oxon., appointed Medical Officer to St. Anne's Home, Herne Bay.

CARRUTHERS, A. E., M.B., B.C.Cantab., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Fourth Sanitary District of the Bath Union.

DUNN, W. E. N., M.B.Lond., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to Queen Charlotte's Hospital.

GODWIN, H. J., M.R.C.S., L.R.C.P., appointed House Surgeon to the Durham County Hospital.

KENBALL, N. F., L.R.C.P.Lond., M.R.C.S., appointed a Medical Officer for the Chiddingfold Sanitary District of the Hambleton Union.

MADDEN, F. B., M.R.C.S., L.R.C.P., appointed Surgeon to the Royal Mail Steamship Don.

MILLEN, S. A., M.R.C.S., L.R.C.P., appointed House Surgeon to the General Hospital, Birmingham.

SHEPARD, R. H., M.R.C.S., L.R.C.P., appointed Surgeon to the P. and O. Steamer Japan.

WATSON, C. G., M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Norfolk and Norwich Hospital.

WESTBROOK, E., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Schools and Almshouses of the City of London Corporation at Brixton.

WILKIN, R. H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Fifth Sanitary District of the Thingoe Union.

Examinations.

FIRST FELLOWSHIP.—A. M. Crabtree, A. E. J. Lister, A. R. Tweedie, J. C. Newman.

FINAL FELLOWSHIP.—J. A. O. Briggs, A. W. R. Cochrane, J. E. S. Fraser, H. M. Masina, A. W. Nuthall, H. J. Price, G. W. Roth, E. J. Toye.

UNIVERSITY OF LONDON.—M.B. Examination: First Division.—P. F. Adams, W. J. Harding. Second Division.—R. Hatfield, E. C. Morland, C. Riviere.

CAMBRIDGE D.P.H.—E. J. Moore.

Births.

CROPPER.—On May 5th, at Mount Ballan, Chepstow, the wife of John Cropper, M.A., M.B., B.C.Cantab., of a son.

DAY.—On May 22nd, at Surrey Street, Norwich, the wife of Donald D. Day, F.R.C.S., of a daughter.

FRASER.—On May 24th, at Tarporley, the wife of Forbes Fraser, F.R.C.S.Eng., of a daughter.

OXLEY.—On May 23rd, at 33, Richmond Terrace, Clapham Road, the wife of W. H. F. Oxley, M.R.C.S., L.R.C.P., of a daughter.

SQUARE.—On May 9th, at Portland Square, Plymouth, the wife of J. Elliot Square, F.R.C.S., of a daughter.

SYLVESTER.—On April 8th, at St. Petree, Leiston, Suffolk, the wife of Herbert Mayris Sylvester, of a son.

Marriages.

GILES—WHITWELL.—On June 6th, at the Parish Church, Saltburn-by-Sea, by the Rev. B. Irvin, Vicar, Leonard T. Giles, M.A., M.B., F.R.C.S., son of the late Rev. Robert Giles, Vicar of Horncastle and Prebendary of Lincoln, to Janet Elizabeth, third daughter of W. Whitwell, Esq., J.P., of Overdene, Saltburn.

GIMSON—MARTIN.—On June 1st, at St. John's Church, Sidcup, by the Rev. C. E. Shirley-Woolmer, Vicar, assisted by the Rev. B. F. Browning, Assistant Curate, William Douglas Gimson, of Chelmsford, eldest son of William Gimson Gimson, M.D., of Witham, Essex, to Anne Margaret, only daughter of the late Alexander Maughan Martin, of Blackheath and Singapore.

PEARSON—HUNTER.—On June 1st, at St. Bartholomew-the-Less, London, E.C., by the Rev. W. Ostle, M.A., Vicar, Maurice G. Pearson, M.B., B.Sc.Lond., F.R.C.S., second son of W. Grey Pearson, M.Inst.C.E., Muswell Hill, to Agnes, youngest daughter of the late Hugh Hunter, Barassie, Ayrshire. No cards.

Death.

COVENTON.—On May 4th, at Indore, St. Leonards-on-Sea, Helen, the wife of Charles Arthur Coventon, M.R.C.S., L.R.C.P., aged 45.

ACKNOWLEDGMENTS.—Guy's Hospital Gazette, Nursing Record, L'Echo Medical, St. George's Hospital Gazette, St. Thomas's Hospital Gazette, St. Mary's Hospital Gazette, Magazine of the London (Royal Free Hospital) School of Medicine for Women, The Stethoscope, Giornale d'Igiene, Guyoscope, "M.K.I."

St. Bartholomew's Hospital



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NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C., BEFORE THE 1ST OF EVERY MONTH.

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St. Bartholomew's Hospital Journal.

JULY 1st, 1898.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

Enuresis.

A Clinical Lecture delivered on June 17th, 1898,

By SAMUEL GEE, M.D., F.R.C.P.

(Reported by W. LANGDON BROWN, M.B.)

SOME time ago we had an instance of what in hospital wards is a rare disease, though outside it is common enough—I refer to enuresis. Enuresis (= mictus, in lectis, vestimentis, understood) is not a classical word; who invented it I do not know; it appears in Sauvage's Nosology, a book of the last century.

It must be distinguished from (1) cases of diuresis (excess. sive flow of urine), or cases where the urine is morbid; you

must carefully test the urine—if it be not normal you are not dealing with mere enuresis; (2) cases of disease of the urinary organs, such as stone; and (3) diseases of the central nervous system or in dementia. Epilepsy may be the cause. If an adult who has not been in the habit of doing so begins to wet the bed, this is strong evidence in favour of nocturnal epilepsy. Many people have nocturnal epilepsy without knowing it.

The subject is not unpractical. I have here notes of a case of a boy who was circumcised for enuresis, when he was really suffering from congenital thirst and consequent polyuria. Of course the operation could do no good.

First there is *enuresis nocturna*, which occurs when a child (for most of what I am about to say refers to children) is asleep. Sometimes the child wets the bed when not asleep, through fear of rising in the dark or mere indolence. The usual cause of enuresis nocturna is very deep sleep; some people sleep very deeply all their life—they are usually of a nervous temperament, and nervous diseases are common in such families. This heavy sleep sometimes concurs with a weak constitution and a low state of health. The heaviest sleep is mostly that which occurs in the first few hours. The bed is often wetted in the first two hours; another common time is early morning, soon after midnight. With many people sleep promotes the secretion of urine. Another reason is that reflexes are more active in sleep; a pretty example of this is seen in a baby asleep with an extended palm. On tickling the palm, the hand closes. So here are three reasons for nocturnal incontinence.

Enlarged tonsils and pharyngeal adenoids promote it. If you see a child asleep with such, you can understand what an effort breathing is. The child appears to be trying to swallow his own tonsils, and when he does get asleep at last he sleeps very heavily.

A second concomitant of enuresis nocturna besides deep sleep is dreaming. The child dreams he is passing his water, and does so; but this is much less frequent.

The second type of the condition is *enuresis spastica*, which you really might call "irritable bladder," but of course without structural disease such as cystitis. It may

occur both by day and night, or sometimes by day alone and not at night. The chief rough means of diagnosis from enuresis nocturna is that the incontinence is diurnal as well as nocturnal. As soon as the desire to pass water arises, the patient must go at once. In one of my cases the parents had the curiosity to count the number of times the boy passed his water in the day. He did so thirty-two times in the twenty-four hours, and yet when the urine was measured it did not amount to more than a pint. The urine is usually quite normal or, what is not uncommon in such cases, it contains an excess of urea. I wish I knew what this excess of urea means, but no one does. If a third of strong nitric acid be added to the urine, there is on cooling a large deposit of crystals of nitrate of urea. In these cases dilatation of the ureters and pelvis of the kidneys may occur, and it is said that the urine then becomes of very low specific gravity.

As to sex, it seems to me that enuresis nocturna is more common in boys than girls, enuresis spastica more so in girls than boys. As to age, it is often continued from infancy, but sometimes children who have learned to hold their water begin afterwards to wet their bed; this often happens at seven or eight years of age. Enuresis in boys ceases at puberty, and may then be replaced by excessive nocturnal emissions, due to the same cause—profound sleep. In girls the influence of puberty is not so marked, and the condition may continue. You cannot depend on puberty in girls doing good, though it may. Marriage and childbirth are said to stop it in some cases, and Trousseau quotes an example of this. There may be a spontaneous cessation; or an intercurrent disease, such as measles, may check it. No doubt in some cases enuresis spastica is merely a bad habit. I remember two cases of ague in which, for purposes of analysis, the patients were required to pass urine every hour for a few days; when the analysis ceased it was found that the patients had got into the habit of hourly micturition, so that at first they could not hold their water much longer than an hour.

You should always search for a local source of irritation in cases of enuresis, such as long foreskin, smegma præputii, masturbation, ascariæ. As to treatment, the patient should be kept very warm when in bed, and should wear a flannel night-gown, and perhaps sleep between the blankets. The influence of chill is often marked in these cases; it is said that if you thrust the hands of a drunken man into cold water he passes his urine into his clothes. Flannel also has the advantage that if the bed be wet the patient is not so chilly. The diet should be attended to. If butcher's meat be entirely cut off, this alone effects a cure in some cases. It is only common sense to rouse the child thoroughly (not always an easy thing to do) an hour after he has gone to sleep, and get him to pass water; but the time when rousing is necessary must be discovered by observation in each particular case. Two drugs are useful, bella-

onna and cantharides. Belladonna was first used in the treatment of these cases by that eminent French physician Bretonneau. It should be given in a full dose at bed-time. What the full dose for any individual is you must find out. It is well to start with ten minims of the tincture or a quarter of a grain of the extract. An accidental overdose has been known to produce alarming belladonna poisoning (which is seldom fatal), and to cure the disease where official doses did no good. In cases of irritable bladder you should give it in a different way; administer it several times a day, and do not give it up after a few days in despair. Cantharides is a more risky remedy; you do not wish to give your patient hæmaturia. Pharmacopœial doses should be rigidly kept to. Much depends on the general health, especially in cases of enuresis spastica. In them "tonics," such as strychnine, sometimes do more good than belladonna. Some children wet the bed only when overwrought and tired. When it is merely a bad habit the child must be treated firmly and punished. Admission to hospital, or in a different class of life sending to school, may cure it; sometimes on coming back for the holidays the habit recurs.

Circumcision is a mode of treatment adopted blindly in many cases. Unless there be some præputial irritation there is no reason for the operation, and experience shows that in most cases it does no good. I knew a boy aged nine for whom circumcision was recommended and performed, not because he did wet his bed, but lest he should do so. Six months afterwards he began for the first time to wet his bed.

I Lecture by John Abernethy.

WE have much pleasure in publishing the subjoined letter from Mr. George Hurst, of Bedford, which we venture to think is of unique interest. Since John Abernethy was born in 1764, elected Assistant Surgeon in 1787, Surgeon in 1815, and died in 1831, Mr. Hurst is probably the only man now living who ever heard him lecture. Mr. Hurst himself is only one month younger than the century, and seeing that it is seventy-eight years since the occasion he speaks of, his communication in itself involves a remarkable achievement of memory.

DEAR SIR,

Any recollections of your former distinguished surgeon, Mr. John Abernethy, will, I believe, be interesting to the readers of your JOURNAL. I have pleasure in communicating, therefore, something of the man as he appeared to me from my own observation.

My recollection carries me back to the early part of this century, as I was born in February, 1800, and the distinguished men and events of that early period are to my mind as fresh and perfect as recent occurrences.

About the year 1820 I heard with satisfaction the celebrated Mr. Abernethy lecture, and his style, manner, and simple elocution impressed me greatly. He has been represented as eccentric, but as a public speaker he was clear, distinct, and impressive. One of the subjects treated of in the lecture I heard was "Fungus Hæmatodes," which was so lucidly dealt with as not easily to be forgotten. Beyond his excellences the only thing peculiar in his manner was his habit of exemplifying by contortions of his countenance the sufferings of the patient dying of a painful disease. At the conclusion he would assume his usual placid deportment.

At that time there were many tales current of his rudeness to patients. If any of them were accurate, as he was not an avaricious man, he was perhaps actuated by a desire of reducing the number of consultations his high reputation procured, which to him had become oppressive.

By the pupils of the Hospital he was esteemed as the highest medical authority of the period; and each student on leaving the Hospital considered himself as only second, having received instruction from that great man's discourses.

As so few can possibly now be remaining who remember anything of the personality of this eminent member of your Hospital, this slight sketch may be interesting to your readers.

I am, yours faithfully,

GEORGE HURST.

KINGSBROOK HOUSE, BEDFORD;

May 27th, 1898.

On the Evidences of an Early Tubal Gestation before and after Rupture of the Sac.

A Paper read before the Abernethian Society, Feb. 3rd, 1898.

by W. GLADSTONE CLARK, F.R.C.S.



WOULD in the first place draw your attention to the importance of some knowledge of this subject from the point of view of the practice of your profession. Cases of this form of pregnancy are so frequent that you may all reasonably expect to come across them from time to time in general practice; but, on the other hand, they may be considered so infrequent that, unless a constant look-out is kept for them, they will altogether escape you from their resemblance to other diseases of women, particularly to different conditions connected with abortion in the early months of pregnancy. Without a suspicion of the nature of the case, you will almost inevitably fall in making a correct diagnosis; and this in turn will lead to treatment such as must further endanger or actually sacrifice the life of your patient. It is this difficulty and this importance of diagnosis, as well as the debatable treatment of any individual case, which imparts the greatest interest to this subject. It is this which places extra-uterine fetation on the same footing as such serious surgical diseases as strangulated hernia, and far removes it from those inevitably fatal diseases in which a differential diagnosis is chiefly of pathological interest, and can have at the most but little practical influence on either treatment or prognosis. For example, compare the importance of distinguishing between a strangulated and a merely irredu-

cible hernia, or between uterine hemorrhage dependent on an extra-uterine or an intra-uterine pregnancy on the one hand, with the at present merely mental satisfaction which might be obtained from being able to say whether a patient with universal glandular enlargements were suffering from round-celled sarcoma, lymphosarcoma, lymphadenoma, general tuberculosis, or leucæmia. In these latter diseases pathology, though advancing, has not yet taught us treatment, whereas the knowledge of the condition and means of cure of a strangulated hernia is of comparatively old standing, and the recognition of extra-uterine gestation as a common and not necessarily fatal accident really began with Sir Spencer Wells's experimental ovariectomies, which commenced in 1858.

Now will you follow me while I review briefly the vexed pathology of this disease before passing on to the diagnosis, which I wish chiefly to bring before your notice in this paper? I would gladly pass over the pathology altogether, but some idea of the effects of the erring ovum and of nature's self-assertion is most necessary for a just appreciation of the latter part of my subject.

As research goes on, and cases accumulate, it appears to become more and more certain that every non-uterine gestation is primarily tubal in its habitat, and we may therefore, with little if any departure from the truth, limit our attention to these cases. Indeed, no case has been recorded of recent years which does not admit of the less romantic tubal origin. The antecedent improbability of an extra-tubal gestation is itself very great, for we must then suppose that the peritoneum or the ovary takes upon itself a function for which it is totally unprepared, namely, that of developing a placental site. We have learned, indeed, in our biological and other studies that one organ of the body may to some extent take on the functions of a disabled one, or that really complex organs may be developed in most unexpected parts—notably, perhaps, the aptitude with which certain molluscs possess themselves of eyes in any likely situation.

But observe, they have never developed even a made-in-Germany placenta. Vis fetus placentation is on its trial, and can hardly escape with its life. In the same connection a good deal has been made of the digestive power of the peritoneum, which, though real enough, would by itself be much less convincing, for spermatozoa have been found in the neighbourhood of the ovaries of rabbits and other animals after a sojourn of presumably several days. It is probable, too, that secondary malignant growths are in some instances started from a primary carcinoma of the ovary or stomach by a process of auto-inoculation of the peritoneum, and attempts at grafting malignant disease on the peritoneum of the lower animals have at times been successful. The question of peritoneal digestion does not affect a secondarily abdominal gestation, for here the peritoneum has been already injured by the presence of the blood. It seems probable that the peritoneum will absorb in the course of time any cells foreign to itself; but the above facts show that it is not in a great hurry about it. Witness, also, the tubal gestations where the corpus luteum has been found in the ovary of one side, and the ovum has passed from one side of the pelvis to the opposite tubelike. Believe, then, that in extra-uterine gestation the ovum remains behind in the place where it has been fertilised in the Fallopian tube, the upper part of Müller's duct, which for the nonce takes upon itself the work of the more specialised uterus, the conjoined lower part of Müller's ducts, and consider the causes of its delay.

The normal progress of the ovum along the tube must depend on the action of the cilia of its epithelial lining and on peristaltic contractions of its muscular wall. We may, then, on theoretical grounds suppose that any pathological condition affecting either factor would be a frequent cause of a tubal gestation, and as a matter of clinical experience we find that an attack of "inflammation" is a very frequent precursor of this disease. How the inflammation has produced the result we can but surmise. It may be by an endo-salpingitis destroying the cilia, it may be by adhesions interfering with the proper contractions of the muscular coats, or by atrophy of the muscular coats—a condition said to be not uncommon after gonorrhœal infection. In other cases it appears to act by diminishing the lumen of the tube by twisting or by adhesions, or by a condition more or less resembling stricture of the urethra. That actual obstruction is an important factor we must not rashly judge from the minuteness of the ostium uterinum, but in some cases there has been found a recognisable obstacle in the shape of a polypus or an intra-uterine twin, and the proportion of twins among tubal pregnancies is not inconsiderable.

I have so far endeavoured to emphasise two facts, viz. that every case of non-uterine gestation is tubal, and that the cause is most commonly to be attributed to a diseased condition of the tube. We have next to consider how the growth of the ovum leads up to a crisis, and what is the nature of that crisis. It is indeed obvious that the

increasing distension of the tube must eventually end in rupture of that frail substitute, and that it may yield in one of two directions, either into the peritoneum or into the substance of the broad ligament, is a fact which is suggested by anatomy and fully supported by the conditions found at operation and at the autopsy. It is equally certain that the rupture must be accompanied by hæmorrhage, which hæmorrhage is generally formidable, often fatal to the mother, and almost always serious. It is at first a matter of surprise to the student that this should be the case, for there are no large vessels in the tube, and a surgical training has advanced a long way when one realises that a serious loss of blood may result from a trivial wound under certain conditions—as, for example, in hæmophilia, where there is little tendency for the blood to clot in the injured tissues. A similar condition prevails in hæmorrhages into the peritoneum where there is no contraction of divided vessels, and where the cells are apparently opposed to the breaking down of the leucocytes and the natural formation of fibrin ferment. The other extreme immediately presents itself, viz. that hæmorrhage into the general peritoneal cavity is necessarily fatal; but this is equally untrue, for all gynecologists have had opportunities of watching the formation of a collection of fluid in the pelvis, which becomes more solid in the course of twenty-four to forty-eight hours, and may then be rapidly absorbed—a sequence which indicates with certainty the hæmic nature of the effusion. Recovery has also been recorded, not very infrequently, where the bleeding has taken place into other parts of the abdominal cavity. These considerations will serve to emphasise the important fact that nature, though handicapped, may still arrest the hæmorrhage from a tubal rupture. That she does so frequently is proved by the pregnancies which continue after the symptoms of rupture, as well as by those hæmatoceles from which the patients recover without operation.

Rupture is accompanied in the great majority of cases by death of the fetus. How this is brought about we need not inquire, for here our care is for the mother and not for the child. Let it suffice, that if our patient survive, the ovum has a utilitarian funeral, being in its early stages completely absorbed. This death of the ovum is as necessary for a cure by nature's own self as the arrest of the hæmorrhage.

We see, then, that the event of rupture is hæmorrhage, which may be fatal to mother and child, or to the child alone, and there remains the third combination where it is fatal to neither. In this case the fetus continues to grow in various situations, most commonly, perhaps, in the broad ligament, and this is followed, usually at no great distance of time, by a secondary rupture, resembling in all essentials the primary rupture, but owing to the greater development of the ovum this secondary crisis may be expected to be more severe. This variety is best described as *secondary intra-ligamentous gestation*. Less commonly the ovum continues to grow in the peritoneum, a condition termed *secondary abdominal gestation*. It is the last variety, much less frequently met with than the preceding ones, which has given rise to the mistaken views of primary ovarian and abdominal pregnancies. Here, too, the patient is subject to a new danger, owing to the impossibility of delivery; and although an abdominal foetation is usually productive of ill health throughout its course, the patient's condition does not become serious till the death of the fetus, which may be expected to take place at term, or a little earlier. I regret that time as well as lack of material will not permit me to pursue these most important and instructive cases, and for the rest of the paper I must confine my attention to the clinical aspect of an early tubal gestation and its rupture.

Let me remind you of the symptoms of this disease by quoting from the notes of one of our hospital cases. With the symptoms I shall include the history of the case, for this also is obtainable from the patient by careful inquiry, and in every gynecological case a preliminary estimate of its nature must be made before subjecting the patient to an examination, for a routine examination cannot be advocated in these as in ordinary medical and surgical cases; and it becomes the first duty of the medical man to decide whether a pelvic examination is or is not necessary. E. S., æt. 33, who had been married fourteen years, stated that she had only borne one child, about one year after her marriage. Her confinement was natural in every way, but she suffered from a severe attack of inflammation during her puerperium. After recovering from this, menstruation occurred regularly for thirteen years, up till January 26th, 1896. Following this she had amenorrhœa till April 9th, 1896 (ten weeks), ending in several attacks of uterine hæmorrhage, and one of these was accompanied by labour-like pains, and she became very faint and ill.

Now this is as full an account as one can hope to obtain, con-

taining as it does all the leading points (except pain during the first months) any of which may be wanting in other cases, and would justify a strong suspicion of an extra-uterine pregnancy; at the same time we must admit that everything could be explained by the abortion. Let us then consider separately the significance of each of these points upon the diagnosis. In the first place, is sterility an invariable antecedent? No, decidedly not; nothing is invariable, least of all in disease. Yet a period of sterility very frequently does precede an extra-uterine gestation, in that the causes of acquired sterility are those which we have seen tend to interfere with the passage of the ovum down the tube. These are, broadly speaking, of a septic nature. The organisms are in most cases those of an ordinary septic inflammation, and are therefore most liable to produce their effect after childbirth or abortion, making their way along the tubes to the pelvic peritoneum, and impairing the functions of both these structures. In the other cases the organism appears to be the gonococcus, which is well known to be a most frequent cause of acquired sterility, apparently by sealing the ends of the tubes by a plastic inflammation, but it doubtless plays its part in the production of extra-uterine pregnancies. From this it follows that the subjects of this disease have generally advanced some years in their life of sexual activity, in that they have been longer exposed to the risks of these antecedent infections. As a matter of fact, they are nearly all between twenty-five and thirty-five years of age.

When the obstruction is due to one of twins, there can hardly be any period of sterility, and I have before me the notes of two cases of extra-uterine pregnancies in primigravida, neither of which was preceded by sterility. The first was in a woman aged thirty-four, and occurred two years after her second marriage. It is true she had been barren for four years to her first husband, but this might as justly have been attributed to failure of fertility on the side of the husband. There was a history of inflammatory trouble about the time of her first husband's death. The second case is less equivocal; it occurred in an unmarried country girl of nineteen, of presumably regular habits. This case was unusual also from the youth of the patient. There was no evidence of gonorrhœa, and though no testis was found post mortem, chorionic villi were readily demonstrated by the microscope.

We see, then, that while acquired sterility after an attack of pelvic inflammation is of peculiar significance, we must hesitate to lay stress on the absence of a history either of sterility or of inflammation.

What is the significance of the amenorrhœa? A period of amenorrhœa following on a previously regular menstruation is extremely constant, in that it is the chief symptom of early pregnancy, and yet the menstrual history is sometimes entirely misleading, and that for more than one reason. Thus in the latter of the cases just referred to, menstruation had been perfectly regular, the fatal rupture having taken place about the time the next period was expected. A merely apparently regular menstruation is a more common state of affairs, owing to the patient's difficulty in distinguishing the irregular hæmorrhages, when slight, from the menstrual flow, but if the subject be pursued it can generally be discovered that the losses are irregular, and further that they are associated with unusual pain. If the patient's account be not clear, it can fairly be assumed that the menstrual function is disordered, but this is by itself no guide at all, and little reliance can be placed on an undoubted period of amenorrhœa in women who have been previously irregular. It is perhaps a matter for surprise that a definite history of amenorrhœa can so often be obtained, considering that disease of the pelvic organs is a precursor both of irregular menstruation and of extra-uterine pregnancy. It is very unusual for the hæmorrhages to begin before the sixth week or be delayed after the tenth week. It must also be remembered that menstruation may be regular during early pregnancy. The following case illustrates this difficulty where the history given was one of menorrhagia. H. H., æt. 29, had borne three children, but had not been pregnant for six and a half years. On January 24th, 1897, she appeared to have a normal period with rather increased loss. On February 24th she had a still more profuse loss, and again on March 21st. She had no unusual pain, but admitted that the flow continued between the last three periods in very slight amount. Previously she had been quite regular, and events proved that these three periods were really the irregular hæmorrhages of an extra-uterine pregnancy. The fatal rupture occurred on March 26th. A more extreme case would be one in which the menstrual flow was usually profuse, and I have met with one such history in what may have been a case of pelvic hæmatocele due to a ruptured gestation sac.

Of the other symptoms of pregnancy, morning sickness, when it occurs, may be a valuable indication, but it is more often absent. A fullness of the breasts may also be noticed, but is not present as a rule

in the earlier cases. Thus in only two out of twelve consecutive cases was the former of these two symptoms noticed, and in one of these twelve, when recourse was had to operation as late as the sixteenth week, the patient had noticed no changes in the breasts. Remembering that patients are mostly multiparæ, we need hardly look for any marked subjective sensations of pregnancy, least of all in the poorer classes, who are notoriously unobservant of themselves, and whose minds do but indifferently appreciate the finer pains and inconveniences of existence.

We have now criticised the history preceding the occurrence of a tubal gestation, and those symptoms produced by the pregnancy; we may now consider the symptoms due to that pregnancy being extra-uterine.

Of these, the one which most attracts the attention of the patient is the pain, which may be so severe as to give evident signs of its presence to the physician. The pain is of constant occurrence, and may be of three distinct varieties. The first is due to the mechanical distension and irregular contractions of the tube. It is spasmodic and colicky in its nature, and is frequently present from the very beginning of the pregnancy. At first troublesome rather than extreme, it may be regarded as a trivial matter by the medical attendant if consulted too early, and the patient herself may accelerate rupture by trying to work it off by exercise, like one would an ordinary strain. It is commonly referred to one or other ovarian region. If rupture be long delayed it becomes very severe. The second variety is that described as bearing down pain, "like labour pains," and begins at or about the time of rupture of the sac. It appears to be of a rhythmic character, and produced by contractions of the uterus itself. It is invariably accompanied by uterine hæmorrhage, and about this time is passed the decidua cast. The duration of this pain is mostly from twelve to twenty-four hours, and confines the patient to bed. The third form of pain is peritoneal pain, and is produced by the effused blood or by its distension of the broad ligament; in fact, it is due to a perimetritis, and with accompanying severe constitutional disturbance, often leads to the imperfect diagnosis of peritonitis.

The hæmorrhage does not as a rule distress the patient greatly, and is put down to a "miscarriage" by hospital patients, at all events; and according to the amount of bleeding, the "miscarriage" is either a "bad" one or a "slight" one. In many cases after the labour-like pains have ceased, and the patient does not find herself well, she is under the impression that she has miscarried, a fact she asserts with such confidence that she will inevitably deceive the unwary investigator. Thus, last November two cases of extra-uterine gestation were admitted to Elizabeth Ward from the out-patient department, where in each case the clerk in his notes had recorded a recent miscarriage. It is most necessary for the physician to assure himself of the truth of such a statement before proceeding further, or he may make a false assumption, inevitably blinding himself to the real condition of affairs. I repeat that no recent miscarriage should be written off as such on the patient's unsupported statement. The other points to be noted in the hæmorrhages are their irregularity and their accompaniment of pain. I have already quoted one case where they simulated three successive menstrual periods rather more profuse and painful than normal, and would now draw your attention to their variability—the one hand being so abundant as to leave no doubt in the patient's mind that she has miscarried, on the other hand being so scanty that their significance may be overlooked by the medical attendant. I cannot quote a case where they have been completely absent at the time of rupture.

With reference to the source of the bleedings, it may be said that the blood always comes from the uterus itself, and not from the tube. The minute ostium uterinum must be readily occluded by any clot, were it not already rendered functionless by the growth of the ovum. New each menstruation is the sign that an unrequired decidua is cast off, the failure of fertilisation being the natural cause for the preparation of a new receptacle for the next ovum if it become fertilised. So, too, the amenorrhœa of pregnancy is the sign that the decidua has become occupied by a fertilised ovum, and undergoing further development is not cast off till the birth of the child by what, in the light of this comparison, would be *une grande fluxe*, and I have no doubt that the hæmorrhage of parturition is strictly analogous to that of the menstrual cycle. Thus the growth of an ovum in the tube must place the uterus in a quandary, whether to cast off the decidua because it is useless, or to retain and nourish it because of the pregnancy. I think the existence of these two opposed impulses not only explains the hæmorrhages, but should lead us to expect them as they are—in one case beginning early, slight and comparatively painless, resembling an imperfect menstruation; in another case delayed but more profuse, and accompanied

by uterine pains and often by the delivery of thickened decidua, resembling an imperfect labour. Why this last event is coincident with the rupture of the tube cannot be precisely defined, but it should be remembered that the rupture is often the termination of pregnancy, and like labour itself may be supposed to have a special relation to the menstrual cycle. That the hæmorrhages must be irregular in presence of such an irregularity of the function of the tube, is but to be looked for when we bear in mind how easily the normal menstrual function is disturbed, or how small a cause may terminate a normal pregnancy. Similarly we may explain the varying date of rupture of the tube, which may only in part be due to mechanical principles.

The last and most prominent symptom is the occurrence of one or more attacks of fainting, accompanied by severe abdominal pain. I prefer to call such an attack a faint rather than a condition of collapse, in that it is dependent on an internal hæmorrhage, and marks in every case the rupture of the tube; which means that although the condition is similar to that produced by the rupture of a hollow viscus, it differs in that it depends not only upon the presence of a foreign body—the blood—in the peritoneum, but also upon the actual loss of that blood. The formation of a comparatively small hæmatocele is productive of a well-marked faint, but that the hæmorrhage becomes all-important later is a fact which cannot be too clearly impressed. I will leave the consideration of the internal hæmorrhage till I speak of the signs of a tubal gestation. Suffice it now to note that this alarming condition in a pregnant woman is the symptom, *par excellence*, of a tubal rupture, in that it can be only produced by an abortion or mole when the external hæmorrhage is enormous, using the word nearly in its literal sense and not as a nineteenth century superlative.

(To be continued.)

The Life and Works of Sir Charles Bell.

Being the Wix Prize Essay for 1898.

By W. E. LL. DAVIES.

"*Nam et ipsa scientia potestas est.*"

OWARDS the close of the last century many influences were at work in Scotland which were to produce in the course of one generation a great change in the habits and thoughts of the Scotch people. The union with England had bereft Scotland of her parliament, and with the parliament had disappeared a host of intriguers who had more or less stifled the energies of the nation. From this time rivalry with England in culture and intellectual study, as well as in industrial and commercial pursuits, had fostered the natural ambition of every Scot. At home eminence in political life was all but excluded, but the energies of the race were devoted to other pursuits which might place her on a level with her richer sister. Before the century had closed these efforts, pursued amidst many disadvantages, had resulted in the formation of Scottish schools of agriculture and literature, and the learned professions boasted men of no small eminence. The Chief amongst these were Playfair and Dugald Stewart. The house of the latter was the resort of all who were most distinguished for genius, acquirement, or elegance in Edinburgh, and of all foreigners who were led to visit the capital of Scotland.* Amongst the younger men of the day were Lord Brougham, Sir Walter Scott, Horner, and Jeffrey, and the brothers Bell.

John Bell, the eldest, was gifted with rare powers of a varied and uncommon quality. Devoted by his father to the medical profession, out of gratitude for a successful operation of which he was the subject, he became one of the most renowned surgeons of his time. Between 1786 and 1796 he lectured with great success on surgery in Edinburgh, and formed for himself a high reputation, his fame becoming second to none in Europe.

George Joseph Bell, the third son, born in 1770, was eight years younger than John. Though he had not had the advantages of a thorough education in early youth, by pluck and perseverance he succeeded in becoming one of the greatest lawyers of his day.

* Stewart, Colonel Matthew, *Memoir of late Dugald Stewart*, Edinburgh, 1838.

Moreover, he gathered around him a circle of legal friends who were destined to shine in the highest realms of literature and law. Sir Walter Scott, Lord Jeffrey, Brougham, Horner, Cockburn, and Moncrieff were amongst his closest acquaintances, and through them he was well in touch with all new movements in the intellectual life of Great Britain. His great work on the laws of bankruptcy, which was afterwards expanded into a profound commentary on mercantile law, will always remain as a monument of his learning and logical power. He ultimately accepted the Chair of Scots Law in the University of Edinburgh.

Charles, the fourth son, was born in 1774. Of his early career it will be necessary to speak at greater length.

The Bells were descended from an ancient and honorable family, resident in Glasgow and the neighbourhood for nearly three centuries. They reckoned amongst their ancestors many who had made names for themselves in the learned professions. Their grandfather, John Bell, was minister of Gleadsmuir, an orator of no mean ability, and their father, the Rev. William Bell, was a scholar of considerable repute. Charles, the youngest son, was only five years old when his father died, so that his training and education devolved on his mother. He was a thoughtful, ardent, desponding yet ambitious boy, chained and subdued by an inability to master the ordinary schoolboy tasks—inability more imaginary than real, as it was not his incapacity for speed but his starting too far behind in the race that was the cause. One can thus understand, after the previous poor training, how the two years which he spent in the High School were years of torture and degradation. But it soon appeared he was no ordinary youth. Education, he himself said, he had none beyond what he learned from his mother. His real training, no doubt, was the example of his brothers. John had become a celebrated man while Charles was at school, and George was at the Bar when Charles was seventeen. From their example and from George's counsel he gained the spark which fired his ambition. He soon discovered where his strength lay. In exact science he began to find all things easy, and he possessed, like his brother John, a rare facility with his pencil, which was fostered by his intimacy with David Allan, a painter of considerable merit. Rambles round Edinburgh with George, during which they dreamed ambitious dreams and built castles in the air, formed no slight part of his early training. George recounts one ramble where they formed the magnanimous resolution that each should write a book and the walk bore fruit in the lawyer's *Commentaries on the Law of Scotland* and the young surgeon's *System of Dissections*. Such was the training with which Charles Bell started as the assistant of his brother John, to whose profession he had been long destined. Such had been his progress that George says of him, "Charles's natural clearness of head and neatness of hand and the vigorous correctness of his conceptions made him an admirable surgeon and one of the first anatomists of his day when he was yet a boy and not entered on life." Charles Bell's position as John's assistant was probably more useful to him than pleasant. Their disparity in years and a dash of impatience on the part of the elder brother rendered their association not quite on an equal footing. But whatever might be the roughnesses he may have encountered, Charles's sunny temper seems to have made light of them all. In his brother's energy and vigour he probably found an unceasing spur to his own powers of thought. His admiration for him was intense, and the amount he learned from him, when he prevailed on him to pour out his stores of knowledge, he always referred to as invaluable. "He did much and press me," he writes after his brother's death, "but since I have lived with him, I have scarcely enjoyed what may be called conversation."

Charles Bell remained associated with John till 1804. Previous to 1798 his duties were mainly confined to the dissecting rooms, furnishing his brother with drawings and preparations, in which he was singularly adept, and assisting him in illustrating his surgical and anatomical works, to some of which he contributed. In 1798 Charles applied for admission to the College of Surgeons, Edinburgh. Owing to professional jealousy or discord, an attempt was made to disqualify John's pupils on the ground that he had been admitted irregularly fifteen years before, and it required a threat of legal proceedings before the College would admit Charles. From that time Charles assisted John in his course of lectures, and their success was immense. Charles published at this time, in two volumes, his *System of Dissections*. In the preface he describes the need of such a book,—as in elementary text-books of anatomy at the time the description of parts was not adapted "to the limited and successive views which in dissection is absolutely necessary, but on the contrary, the anatomy of any part to be dissected, or of any part implicated in a great operation, had to be collected from different sources, muscles from one place, blood vessels from another, and

nerves from a third. The descriptions were not such as to create interest in the student, and did not exhibit the dependence of parts on each other." The object of the work he states was "to serve as an assistant to the student, in acquiring a knowledge of practical anatomy, in gaining a local memory of the parts, in learning to trace them upon the dead subject, and to be able to represent them in his own mind on the living body."

This book is dedicated to Dr. Daniel Rutherford, Professor of Botany in the University of Edinburgh, and Physician to the Royal Infirmary. It is needless to point out the value of such a book in the dissecting room at that time, and its value was enhanced by the considerable engravings. Young Bell's publications brought him some splendid engravings, chiefly from his skill as a draughtsman, for he drew his own diagrams, and thus he became well known to the profession in England as well as in Scotland. He was a very good operator, rapid and resolute, and was popular as a lecturer. But owing to some quarrel amongst the medical profession in Edinburgh at the time, in which his brother John had taken a prominent part, the managers of the infirmary forbade any surgeon who had not attained a certain seniority to operate within its walls. This edict excluded both John and Charles Bell. The former ceased to edit and the latter resolved to quit Edinburgh and try to make a name for himself in London. It was at this time that his real struggle began. He went to London almost without a friend, and most of those whom he consorted with on his arrival were refugees like himself. He often dined with the Edinburgh Club, "about fifteen of us in all, mostly of the law, all except Sydney Smith and Elmsley the Grecian." Shortly afterwards, July, 1805, he dined with Longman, "All Scotch—Horne, Brougham, Allen, Sydney Smith, and Abernethy. No one will interfere with my language." In his first few months he went sometimes to play and heard Grassini and Catalani, and sometimes to the House of Commons to hear Pitt, Fox, Sheridan, and Whitbread, and his remarks about some of these orators are scarcely complimentary. He started with hardly a professional introduction excepting such as his reputation gave him. He called on Dr. Matthew Baillie, the morbid anatomist, who showed him great kindness, Wilson, the anatomist, Abernethy, who was very kind and cordial, and Sir Astley Cooper, who was civil; but the greatest sympathy came from Lynn, the surgeon at Westminster Hospital, and Dr. Maton, the Court physician. Nevertheless he was about as solitary as a man could be, and roamed about as he had done in Edinburgh, dreaming dreams and building castles in the air. "In short I was as romantic as any man could be, though the prevailing cast of my mind was to gain celebrity and independence by science, and perhaps that was the most extravagant fancy of all."

In 1806 he published his essays on the *Anatomy of Expression*. He had brought the manuscript with him to London, and at first found a difficulty in obtaining a publisher. West, then President of the Royal Academy, advised the publishers to take it, and it subsequently passed through several editions. The book, however, at once established the reputation of its author and assumed the rank of a standard work. It was not, however, the first book of its kind, as there had been two books written previously similar to it, the one by Le Brun and the other a work published by Dr. Brisbane in 1769. The former work had been abandoned as worse than useless by every student who had been taught to resort to it, as his view of anatomy was not scientific or precise, and many of his sketches were inaccurate in this very particular. Dr. Brisbane's book, *The Anatomy of Painting*, contains little more than the six tables of Albinus, with a confession of the author's ignorance of the art of design and a wish that some more competent person would undertake the work. The object of Bell's book was to show to painters the importance of anatomical study. The arrangement is not always happy, and in treating the more abstract and disputable parts of the subject there seems to be a want of simplicity in his statements. The author himself seems to feel this, for he tries to remedy it by repetition. In his first essay, after shortly explaining the extent of the subject which the author proposed to illustrate, he treats at some length of the errors into which artists are apt to be betrayed by the study of the antique and by that of the academy figure. In the second essay he treats of the skull and different forms of the head, chiefly as indicating different periods of life. In the third he treats of the muscles of the face of man and the lower animals. The fourth seems to be the most interesting, as it treats of the expression of passion as illustrated by a comparison of the muscles of the face in man and in the lower animals.—Laughter he thinks peculiar to man, as well as expressions of hope, admiration, despair, and many other emotions.

The work closes with pointing out the distinctions between the

position of a man in sleep and in death. The sketches by which it is illustrated do great credit to the taste and talents of the author; they are exceedingly striking and expressive without anything of commonplace or caricature. "The whole work is very interesting, as it explains the mechanism of familiar movements of expression, and it also criticises well-known works of art, but the scientific treatment is not very deep." It was exceedingly well received both by the medical profession and by artists, although the sale was slow. Flaxman and Fuseli covered him with compliments, and the queen read it for two hours,—on hearing which Bell irreverently exclaimed, "Oh! happiness in the extreme that I should write anything fit to be dinned by her snuffy fingers." If Bell had done nothing else the work stamped him out as a man of learning, originality, and genius. However its main importance lies in the fact that it was a stage on his path of discovery. His book made him famous but not rich. The means of starting in practice and as a lecturer were still to be found—no easy task in London. At last he took a house in Leicester Square, which had been the residence of Speaker Onslow, and, as he found afterwards, the scene of the exhibition of the Invisible Girl, the mechanism connected with which he discovered in raising some boards of the flooring. He started with forty listeners at the opening anatomical lecture in January, 1806, and only three pupils. This must have been very discouraging to him, and in his letters to his brother George at this time he talks of returning to Edinburgh. Gradually, however, practice began to flow in his direction, and at the end of four years and a half he writes to George, "My little red book says now £900; D—'s fee will make it £1000. That is a comfortable reflection to come to Scotland with." The next year he writes, "On March last I had £1000, this year I hope to run near £1500." He was now on what seemed to be the highway to fame and fortune, and in 1811 he married. The lady, Miss Marion Shaw, was the sister of his brother George's wife, and whatever clouds at times overshadowed the rest of his career, this union seems to have been a source of unchanging sunshine. He then left his dull quarters in Leicester Square and removed to Soho Square, where his earlier married years were spent. Meanwhile, however, though struggling with his earlier difficulties, he was following out a clue which he had long before laid hold of, a clue which enabled him to place the coping stone on his fame. In one of his letters which he wrote to Westminster Hospital, and Dr. Maton, the Court physician. Nevertheless he was about as solitary as a man could be, and roamed about as he had done in Edinburgh, dreaming dreams and building castles in the air. "In short I was as romantic as any man could be, though the prevailing cast of my mind was to gain celebrity and independence by science, and perhaps that was the most extravagant fancy of all."

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ceeding both from the brain and from the spinal cord were possessed of two functions—one sensory and the other motor. But it never occurred to any of them that separate nerves were needed for these separate functions. When a nerve was divided either accidentally or by a surgical operation, they observed only one invariable result—the part supplied by the severed nerve was deprived both of action and sensation. Instances must have come under their notice, one knows now, in which this double result did not take place, but the unexpected fact escaped their observation, or at least attracted no attention. Alexander Monro (secundus), professor of anatomy in Edinburgh, had discovered that the ganglions of spinal nerves were formed on the posterior roots, whilst the anterior roots passed the ganglions, thus furnishing the starting-point for Charles Bell in his researches. Santorini and Wrisberg furnished him with another point by describing the two roots of the fifth pair of nerves of the brain; and Prochaska and Socemmer unwittingly supplied a third point of guidance by calling attention to the resemblance between the spinal nerves and the fifth pair. These last anatomists seemed on the very verge of the great discovery, because they said, why should the fifth nerve of the brain, after the manner of the nerves of the spine, have an anterior root passing by the ganglion and entering the third division of the nerve? But these men, eminent as they were, failed to unravel the tangled skein. Antonio Scarpa, the greatest anatomist of his day, tried his hand at it and failed. "Is the posterior root," he said, "a proper and peculiar kind of nerve belonging exclusively to the spinal marrow, while the anterior root is a cerebral nerve?" Soemmering, seeing that three nerves went to the tongue, instead of conceiving, as is really the case, that they had three distinct functions, satisfied himself by supposing that several small nerves were equivalent to one large one, and Dr. Munro suggested that two nerves were given to the face, lest by the accidental division of one, the face should be deprived of nervous power altogether. Such were the misty speculations afloat, even in the highest quarters, when Charles Bell began his researches. After much thought and careful consideration of the anatomical details, both in his own dissections and the elaborate plates of Scarpa, the happy idea took shape in his mind of looking to the origin or starting-points of the nerves in order to find out their functions. This was the novel basis, the great initial step, in his splendid career of discovery. He observed the exact resemblance of the spinal nerves throughout their whole course, and was thus led to experiment on them at their roots. After a time he carried on his inquiries into the nerves of the brain, and prosecuted them in a similar manner, by taking their origins as his guide. By thus extending his observations to both these organs, he gained the important advantage of comparing with each other various nerves which differed essentially in the number and structure of their roots, and of elucidating the functions of the one kind by contrast with the others. The basis of his discovery depended on the simple observation that all the spinal nerves had, within the sheath of the spinal marrow, two roots, one from the posterior, another from the anterior portion. In a letter to his brother George (12th March, 1810) he describes the two experiments by which he established their different functions. The results realised his anticipation. He proved that the anterior root was distinct in its function from the posterior. However, his final views were formed by associating those results with others derived from experiments on the brain. He selected two nerves of the brain, the fifth, which has a ganglion, and resembles very much the spinal nerves, and the seventh, which has no ganglion. On cutting across the fifth pair in the face of an ass, the sensibility of the parts to which it was distributed was entirely destroyed; on cutting across the seventh pair the sensibility was not in the least diminished. Further inquiry showed that the anterior root was a ganglionic nerve, was the sole organ of the sensation to the hand and the face; and as ganglions were thus shown not to cut off sensation (which was the popular belief of the time), he was confirmed in the opinion that the ganglionic roots of the spinal nerves conferred sensation. He then examined the fifth nerve of the brain more closely, and discovered that it had double roots like those of spinal nerves, an anterior passing by the ganglion, and a posterior passing into or forming the ganglion. Charles Bell conceived that the anterior of the double nerves of men and animals orders the voluntary movements. This opinion he also tested by experiment. As the non-ganglionic portion is distributed to certain muscles of the jaw, if that root of the nerve were divided, these muscles ought to be paralysed. The result was as he expected—the jaw fell. The key was now in his hand, which he used to good purpose. By tracing upwards the anterior columns of the spinal cord from which the motor nerves were seen to emerge, and by looking to their distribution, he was able to establish, both

inferentially and experimentally, the functions of various other nerves. To sum up briefly, Bell had so far discovered that

- (1) There are two kinds of nerves, sensory and motor.
- (2) The spinal nerves have filaments of both kinds.
- (3) The anterior roots of the spinal nerves are sensory.
- (4) The posterior roots of the spinal nerves are motor.
- (5) The fifth nerve of the brain is both motor and sensory.
- (6) The seventh nerve is the motor nerve of all the muscles of expression in the face.

(7) The tractus motorius was a column extending from the origin of the third cranial nerve to the termination of the spinal cord, and all nerves that branched off from it were motor nerves.

As proving the astuteness and carefulness of Bell's observations, it may be stated that, with the exception of the seventh conclusion, his views are practically identical with those held at the present day.

We know now, by the help of Golgi's method of staining, that there is no anatomical continuity between the upper and lower nerve segments. It is now proved that the upper neuron has its origin in the cells of the cerebral cortex, and that the connection which it has with the lower neuron, which arises in the cells of the anterior horn, is only physiological. But, as far as Bell's conclusions went, they were perfectly correct. But he was not satisfied with these researches. By surveying the nerves of the body generally, and observing the different modes in which they arose from the subdivisions of the brain and spinal cord on the one hand, and the appropriations of particular kinds of nerves to distinct organs on the other, he was led to believe that such peculiarities of origin and distribution had an important significance, that they indicated distinction in the functions of the nerves, additional to those which he had already ascertained. In taking that extended view he arrived at the conclusion that man was supplied by two different sets of nerves—the "original system of nerves," so called by Bell, which man possessed in common with the rest of the animal kingdom, and man possessed in common with the rest of the animal kingdom, and the "respiratory system," which had become so specialised as to be peculiar to man and worthy attributes of man's mind. It would not be within the scope of the essay to enquire what relation these discoveries bore to his belief in Creation—whether they were a cause or an effect. We are also fully aware of the difficulty of criticising his works justly, and for that reason we have contented ourselves with but a very brief criticism. We cannot have the least idea under what disadvantages he worked. The anatomy and physiology of the nervous system before his time was a chaos, and Charles Bell was the first to bring any light or order into it. But although he worked under such adverse conditions, as we shall see later on, his conception of the nervous system as a whole was remarkably true, and his theories have stood the test of nearly a hundred years.

We shall now briefly renew his discoveries and theories as regards those two systems of nerves.

1. *Original system of nerves.*—He was particularly struck by the remarkable manner in which the large series of spinal nerves with their analogous nerve of the brain, the fifth, arose from the central organs and passed to their destination. This first class of nerves, organs and bestowed nervous endowments essential to the existence and well-being of creatures of every grade, high and low, in the animal kingdom. He asks the question, given an organised body, dependent for its subsistence on nourishment which it must procure by voluntarily going in quest of it, what organs and properties must it possess to qualify it for that mode of existence?

He concluded that three sets of organs were indispensable to such an existence:

- (a) Organs of locomotion, such as legs or inferior substitutes for them.
- (b) Organs of prehension, such as arms and hands to seize prey, or inferior substitutes for them.
- (c) Organs of mastication—as jaws, armed with teeth or their inferior substitutes.

By means of the spinal nerves the power of motion is given to the upper and lower extremities, the representatives of the organs of prehension and locomotion; and by the small root of the fifth cranial nerve, which is distributed exclusively to the muscles of the jaw, motor power is bestowed on the part which represents the organ of mastication. We must admit that Bell had confined his view to very narrow limits. He might have expanded his field of observation, and include not the individual only, but also the species.

As the result of the same series of experiments, he found out that not only were these nerves the paths along which motor impulses were conveyed, but that by the special nerves common sensation or sense of touch is supplied to all the surfaces of the body (except the

head), and by the large root of the fifth the same property is given to the head, together with the special sense of taste.

He in a sense forestalled the microscopist and opened up the path for him. Bell more than eighty years ago proved the close relationship existing between the spinal nerves and the sensory root of the fifth cranial nerve, but it is only within very recent times that we have found out that the cells of the Gasserian ganglion and the cells of the ganglia on the posterior root of spinal nerves are alike in shape and characters, and probably identical in function.

After an examination of the development of the nervous system in the various species of the animal kingdom, the conclusion which Bell came to was that the series of spinal nerves together with the fifth cranial nerve constituted a class which belonged to all the various species in the animal kingdom; that it ministered two functions and endowments equally necessary to those high and low in the scale; that in animals of the earliest and simplest construction it existed in the rudimentary form of a nervous system, but that by a gradual process of development it attained the perfect condition exhibited in the Vertebrata and in man. Thus in arranging the series together in his classification he called them the original system of nerves.

2. *Respiratory system of nerves.*—Bell shows how by a combination of extensive changes gradually wrought in the structure of animals, from the lowest to the highest, a fit instrument is at length constructed to minister to man's highest endowment—the "mind." The speculations of Bell proved what a true conception he had of life and how correct was his interpretation of facts. It is true that we have to some extent modified our views as to the causes which are at work in the organic world, but the tendency of modern opinion is towards forward by the great naturalist, Charles Darwin, caused a great revolution of feeling in favour of natural selection. Signs of a reaction are, however, not lacking now.

Largely on the ground that man alone of all animals is endowed with the faculty of language, Sir Charles Bell concluded that the particular series of nerves which are characterised by being distributed to the organ of respiration, together with the portion of brain from which they arise, has been added in the course of development of animals generally, and as a special addition in man, to the pre-existing original system of nerves.

When the nerves included in the two foregoing classes—the "original" and "respiratory"—had their respective places assigned in this arrangement, nearly every nerve throughout the body which arises from the brain and spinal cord had been accounted for. The nerves not comprehended were those of the three organs of sense—smelling, seeing, and hearing, together with the few nerves of the orbit subservient to the appendages of the eye.

In regard to the nerves of the senses, Bell conceived that the particular sense possessed by each was a special and distinct endowment, and that it was obtained through the connection of the nerve at its root with a part in the interior of the brain introduced to give that sense exclusively. Hence he considered that no one nerve of sense could take upon itself the office of any of the others. For example the nerve of vision—the optic nerve—could not feel by touch any more than a nerve of sensation could perceive variations of light and colour. The optic nerve he thought was limited to discriminating diversities of colours or shades in light; the auditory to distinguishing varieties of sound—and so on, and several interesting illustrations of these views are given in the pages of *The Hand*. Again, he was of opinion that each of the various senses was implanted in the nervous system at a distinct stage in the development of animals generally. The sense of touch and taste he believed, as stated above, to be first conferred, the others he thought were added as the animal rose in the scale and stood in need of more varied sources of perception in regard to the properties of external objects. Entertaining these views he represented the nerves of smelling, seeing, and hearing as supplementary to those of touch and taste constituting a sub-class of the "original" system.

All the nerves embraced in the cerebro-spinal axis having been thus disposed of by Bell in his classification, there remained but one set of nerves, and the general characters of these differed so greatly from the others that there could be no difficulty in classing them apart from the rest. The nerves referred to are the sympathetic system. Bell's view of the sympathetic system seems to have been arrived at by a process of subtraction, as he assumes that it fulfilled offices which had been left unprovided for by the classes of nerves whose functions had been ascertained.

He supposed that it presided over those organic processes in the economy which are common to vegetables and animals, and which

are carried on secretly and independently of the direct control of the brain, such as secretion, absorption, assimilation, growth, reproduction, and decay.

In 1824 he published *An Exposition of the Natural System of the Nerves of the Human Body, with a republication of the papers delivered to the Royal Society on the subject of nerves*, amply illustrated by drawings and narratives of cases both of accident and disease. One really can only get an adequate conception of his researches by perusing this book, and especially that part referring to the eyeball and its appendages, and to the physiology of respiration. The appendix published in 1827 consists mostly of pathological evidence bearing on inquiries into the function of nerves chiefly communicated to him by other men.

Years and sometimes generations pass by before great discoverers are allowed to assume their rightful place in the public estimation. Charles Bell was no exception to this rule. But prejudice and ignorance have now been cleared away, and his name may fairly claim its place beside that of Harvey. The remark has often been made that when one examines the four valves of the heart, and the valves of the larger veins, especially in the lower extremity, it is a wonder that no anatomist before his time had reasoned out the subject to the same result. But the wonder is of another kind when we think of Bell's discoveries. He had no mechanical arrangements to assist him; the nervous system presented to the eye of the anatomist a maze of confused structures apparently inextricable. In discovering the master-key he won for himself a very exalted and almost solitary place among the cultivators of physiological science.

(To be continued.)

Notes.

THE Bart.'s men at present in Calcutta are anxious that any men going out there from this Hospital should let them know of their arrival. They would like to be able to welcome them to India, and to render such assistance and advice as may be in their power. Such Bart.'s men are requested to communicate with Surg.-Capt. R. Bird, Resident Surgeon and Officiating Professor of Physiology at the Medical College, Calcutta. We are sure that many will be glad to avail themselves of an invitation indicative of so much *esprit de corps*.

DR. J. DRYSDALE has been appointed Assistant Demonstrator of Practical Medicine *vice* Dr. H. M. Fletcher.

MR. W. E. MILES has been re-elected Assistant Demonstrator of Anatomy.

DR. J. B. CHRISTOPHERSON has been elected Assistant Demonstrator of Anatomy *vice* Mr. J. S. Sloane.

DR. KENNEDY ORTON has been re-elected Demonstrator of Chemistry.

MR. W. C. REYNOLDS, of the Royal College of Science, South Kensington, has been elected Assistant Demonstrator of Chemistry.

MR. C. J. THOMAS has been re-elected Assistant Demonstrator of Biology.

MR. R. C. ELSLIE has been elected Assistant Demonstrator of Biology.

THE following Bart's men have been appointed by the Home Secretary to act as Medical Referees under the Workmen's Compensation Act:—Mr. Bruce Clarke and Mr. James Berry (Bloomsbury and Whitechapel), Dr. W. G. Vawdrey Lush (Weymouth), Mr. C. Hamilton Whiteford (Stonehouse), Mr. H. Hind (Harrogate), and Mr. W. Balmgarnie (Southampton, Winchester, and district).

DR. HORTON-SMITH has been appointed Assistant Physician to the Metropolitan Hospital.

MR. W. T. HOLMES SPICER, F.R.C.S., has been elected Assistant Surgeon to the Royal Ophthalmic Hospital, Moorfields.

THE following is the official arrangement of beds during the closing of the South Wing:

Medical.	Male.	Female.
Dr. Church	Mary, 22	Faith, 11
Dr. Gee	Coburn, 20	Hope, 11
Sir D. Duckworth	John, 21	Faith, 11
Dr. Hensley	Colston, 24	Hope, 11
Dr. Brunton	Rahere, 24	Charity, 11
Dr. Champneys		Charity, 11
Surgical.	Male.	Female.
Mr. Willett	Pitcairn, 26	Harley, 13
	Paget, 2	Paget, 3
Mr. Langton	Henry, 26	Lucas, 13
	Paget, 2	Paget, 3
Mr. Marsh	Darker, 25	Abernethy, 18
	Sitwell, 25	Lucas, 13
Mr. Butlin	Paget, 3	Paget, 3
	Kenton, 26	Harley, 13
Mr. Walsham	Paget, 2	Paget, 2
Mr. Cumberbatch	Paget, 2	Abernethy, 2

WE UNDERSTAND that Dr. West is willing to take a Vacation Class in Clinical Medicine for old St. Bartholomew's men during the months of August and first half of September. The Classes, we hear, will be taken in the wards once a week at times to be subsequently arranged, and it would be well for anyone who desires to attend to communicate with Dr. West direct.

THE Luke Armstrong Scholarship in Comparative Pathology has been awarded by the University of Durham to Mr. P. E. Turner, M.B., B.S.

THE DEGREE of M.D. of the University of Cambridge has been conferred upon H. K. Anderson, J. J. Taylor, E. H. Douty, and J. B. Christopherson.

THE DEGREE of M.B. of the University of Cambridge has been conferred upon J. E. Sandilands and Hon. G. H. Scott. Mr. Sandilands has also taken the B.C. degree.

THE Seventh Decennial Contemporary Club held a very successful dinner at Frascati's, on Wednesday, July 6th.

Dr. John Mason, of Windermere, took the Chair, and ninety members were present. Dr. Mason, after proposing the health of the Club, presented Mr. Bowlby with the wedding gift subscribed by the members; it consisted of five silver baskets for table decoration.

DR. W. H. MAIDLAW has been appointed captain of the Ilminster Cricket Club, which is having a good season. The club has played eight matches, of which they have won seven and lost one.

THE current number of the *Amateur Photographer* contains an article by Mr. E. C. Fincham, on the cinematograph as applied to medicine, in which it is pointed out that this instrument, so far from being merely a toy, may prove of great scientific value.

Amalgamated Clubs.

CRICKET CLUB.

ST. BART'S v. GUY'S.

This match was played at Chickwick Park on June 17th, and resulted in an easy win for Bart's. Guy's won the toss, and batted first on a fast and true wicket. Their batting was very consistent throughout, the best innings being that of Humphrey, whose innings of 30 included some fine drives to the off. Brydon at one time looked dangerous, but was well taken by Brunner in the country. Their innings closed for 186.

Our start was disastrous, Randolph being caught in the slips off Clarke's first delivery. Greaves came in, and after making a very hard drive off Clarke, and another off Wiltshire, settled down to good sound cricket. At 34 Nunn was bowled by Wiltshire for a good 21; Brunner followed, but at 40 was bowled for a single. With Willett's arrival matters improved, and, despite bowling changes, 117 were added before Greaves was bowled while trying to drive Clarke. His 80 was made in his best style, and without a chance. Willett did not stay much longer, retiring with a capital 40 to his credit. With Bigg and Talbot in the score rose steadily, until 180 was reached, when Talbot was caught off M. C. Wetherell. Rose joined Bigg, and the Guy's total was passed. The bowling now became very loose, and runs came fast. Bigg was playing very attractive cricket. Wickets continued to fall at intervals until Pank came in for the last wicket. A long stand followed, 82 runs being added before the last-named batsman was bowled for a hard-hit 40. Bigg carried out his bat for 82, his innings being very praiseworthy.

SCORES.

GUY'S.	ST. BART'S.
A. F. Clarke, b Rose	J. W. Nunn, b Wiltshire
F. E. Wetherell, c Boyle, b Rose	W. H. Randolph, c M. C. Wetherell, b Clarke
K. V. Trubshaw, b Pank	H. S. Greaves, b Clarke
J. M. Brydon, c Brunner, b Pank	F. E. Brunner, b Wiltshire
K. B. Alexander, c Nunn, b Greaves	J. A. Willett, b M. C. Wetherell
M. C. Wetherell, c Boyle, b Greaves	E. Talbot, c Wiltshire, b M. C. Wetherell
L. Humphrey, b Bigg	L. B. Bigg, not out
H. Durbridge, c Turner, b Pank	E. F. Rose, c and b Clarke
G. T. Willan, b Pank	C. H. Turner, b Trubshaw
A. E. Causton, c Willett, b Rose	H. E. Boyle, b Wiltshire
H. P. Wiltshire, not out	H. W. Pank, c Clarke, b Trubshaw
Extras	Extras
Total	Total

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Rose	20	5	57	3
Pank	27	6	58	4
Greaves	16	3	40	2
Willett	3	1	8	0
Bigg	2	0	18	1

BART'S v. HAMPSTEAD.

This match was played at Hampstead on June 18th, and resulted in an easy win for our opponents, who were strongly represented. We were unfortunate in losing the toss, as Hampstead took full advantage of first innings. W. R. Moon was top scorer for them with a good 53. The innings closed for 205. Bart's showed up but poorly against this total; Greaves and Sale were the only two to reach double figures, Greaves' 29 being a good innings. Finally we were all out for the small total of 73. Following on we fared only a little better, losing 7 wickets for 86.

SCORES.

HAMPSTEAD.

L. J. Moon, b Rose	20
J. G. O. Besch, c Boyle, b Rose	0
H. R. Hebert, c Rose, b Greaves	1
W. S. Hale, b Rose	27
L. M. Farniloe, b Willett	32
W. R. Moon, b Willett	53
A. R. Trimen, b Pank	21
W. W. A. Deane, c Willett, b Pank	6
F. R. Spofforth, b Pank	7
E. L. Marsden, b Pank	20
S. S. Pawling, not out	7
Extras	2
Total	205

ST. BART'S.

1st Innings.	2nd Innings.
H. Buck, b Spofforth	4 b A. Deane
J. C. Sale, b Hale	11 b w, b Truman
H. S. Greaves, b Marsden	20 b Pawling
F. E. Brunner, b Hale	6 b Trimen
J. A. Willett, b Marsden	3 b Trimen
L. F. Rose, c Moon, b Spofforth	4 b Trimen
H. E. Scoones, lb w, b Spofforth	0 run out
H. W. Pank, c Trimen, b Spofforth	9
C. H. Turner, b Spofforth	4 not out
H. E. Boyle, not out	0
C. F. Nicholas, b Spofforth	0
Extras	3
Total	73
Total (for 7 wickets)	86

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Rose	19	2	57	3
Pank	17	2	73	4
Greaves	8	1	26	1
Turner	4	1	17	0
Willett	10	1	32	2

ST. BART'S v. HAMPSTEAD.

This match was played at Winchmore Hill, on Saturday, July 2nd, and ended in a victory for the hospital by 43 runs. The Wanderers won the toss, but preferred to put us in on a sticky wicket. We started very disastrously, 3 wickets falling for 29 runs. Willett and Scoones then made an invaluable stand for the sixth wicket. Both played excellent cricket, Scoones making 32, while Willett was out for a splendid innings of 52. When the Wanderers went in they found runs very hard to get, both the bowling and fielding of the hospital team being good. When the last wicket fell they were 43 runs behind our score, Coleman being not out with 25 to his credit. Rose bowled excellently, taking 5 wickets for 40; while Willett took 3 for 20. Scoones brought off three catches, that which dismissed Pretty being an especially brilliant effort.

SCORES.

ST. BART'S.		2nd Innings.
1st Innings.		
E. F. Rose, b Birch	0	
W. H. Randolph, b Birch	1	c Moggeridge, b Brookes
H. S. Greaves, c Colman, b Bull	18	
L. B. Bigg, b Bull	4	not out
L. Talbot, c Berridge, b Birch	4	
J. H. Willett, b Pretty	52	
H. E. Scoones, c Leave, b Bicknell	32	
H. J. Pickering, b Bull	14	
C. H. Turner, b Leave	4	
H. E. Boyle, c Moggeridge, b Bicknell	3	
H. E. Stanger-Leathes, not out	3	
Extras	6	Extras
Total	141	Totals

WANDERERS.

H. C. Pretty, c Scoones, b Rose	10
E. H. S. Berridge, b Stanger-Leathes	5
R. B. Brookes, b Rose	17
G. S. Bicknell, c Scoones, b Rose	3
S. Colman, not out	23
C. F. Moggeridge, c Talbot, b Willett	7
H. T. Bull, b Willett	0
H. H. Behrend, c Scoones, b Willett	4
J. Faulkner, b Rose	0
F. H. Birch, run out	1
A. B. Leave, c Randolph, b Rose	13
Extras	7
Total	98

Rose	took 5 wickets for 47.
Stanger-Leathes	1
Willett	3

LAWN TENNIS CLUB.

ST. BART'S v. HORNSEY L.T.C.

Played at Hornsey on May 18th, and won by Bart's by 7 matches to 2, 15 sets to 5, and 102 games to 78.

- J. Stirling-Hamilton and L. Orton—beat E. E. Adamson and A. G. Eldridge, 6-2, 6-1.
- beat J. S. Puckle and C. S. Robbins, 6-2, 6-2.
- beat J. H. Nickolls and F. W. Sloper, 6-2, 6-4.
- C. H. Barnes and S. Hey—lost to Adamson and Eldridge, 3-6, 4-6.
- lost to Puckle and Robbins, 6-3, 3-6, 7-5.
- beat Nickolls and Sloper, 9-7, 6-4.
- G. V. Bull and C. Pennefather—beat Adamson and Eldridge, 6-4, 6-3.
- beat Puckle and Robbins, 6-3, 3-6, 7-5.
- beat Nickolls and Sloper, 6-3, 6-3.

The matches on May 19th and 21st against Winchmore Hill L.T.C. and Wanstead L.T.C. were scratched owing to rain.

ST. BART'S v. SOUTHGATE L.T.C.

Played at Winchmore Hill on May 28th. St. Bart's lost by 9 matches to 0, 18 sets to 3, and 121 games to 58.

- J. Stirling-Hamilton and L. Orton—lost to C. R. Weir and F. C. Burry, 6-1, 2-6, 4-6.
- lost to A. H. Green and Simpson, 3-6, 9-7.
- scratched to A. R. Cowan and C. Barker (retired).
- J. Valerius and W. H. Crossley—lost to Weir and Burry, 4-6, 4-6.
- lost to Green and Simpson, 3-6, 3-6.
- lost to Cowan and Barker, 3-6, 3-6.
- G. V. Bull and H. T. George—lost to Weir and Burry, 1-6, 1-6.
- lost to Green and Simpson, 1-6, 6-4, 4-6.
- lost to Cowan and Barker, 1-6, 2-6.

ST. BART'S v. COOPER'S HILL L.T.C.

Played at Cooper's Hill on June 1st. St. Bart's lost by 3 matches to 6, 7 sets to 14, and 82 games to 116.

V. S. A. Bell and T. K. N. Marsh—
lost to V. T. Janson and A. C. Crawley Bolvey, 2-6, 3-6.
beat H. H. Foll and Moser, 7-9, 6-3, 10-8.
beat Hicks and Brancher, 6-4, 12-10.
J. Stirling-Hamilton and I. Orton—
lost to Janson and Crawley-Bolvey, 2-6, 2-6.
lost to Foll and Moser, 4-6, 7-5, 3-6.
beat Hicks and Brancher, 6-2, 6-4.
S. Hey and F. A. Rose—
lost to Janson and Crawley-Bolvey, 0-6, 1-6.
lost to Foll and Moser, 2-6, 1-6.
lost to Hicks and Brancher, 2-6, 0-6.

ST. BART'S v. CONAUGHT L.T.C.

Played at Chingford on Saturday, June 4th. St. Bart's won by 7 matches to 2, 14 sets to 5, and 106 games to 77.

V. S. A. Bell and J. Stirling-Hamilton—
beat H. G. Ridgers and S. W. Newling, 6-4, 6-2.
lost to B. Collins and C. Winterton, 3-6, 3-6.
beat E. C. Walbourn and R. A. B. Reynolds, 6-0, 3-6, 6-1.
L. Orton and C. Pennefather—
beat Ridgers and Newling, 6-1, 6-4.
beat Collins and Winterton, 6-0, 6-4.
beat Walbourn and Reynolds, 6-4, 6-2.
C. H. Barnes and S. Hey—
beat Ridgers and Newling, 0-4, 0-4.
lost to Collins and Winterton, 9-11, 3-6.
beat Walbourn and Reynolds, 6-4, 7-5.

ST. BART'S v. CONAUGHT L.T.C.

Played at Chingford on Tuesday, June 7th. St. Bart's lost by 4 matches to 5, 10 sets all, and 112 games to 103.

V. S. A. Bell and C. Pennefather—
lost to C. Winterton and B. Collins, 4-6, 6-2, 5-7.
lost to Ide and E. C. Walbourn, 5-7, 8-8 (unfinished).
beat H. Cruickshank and J. S. Puckle, 6-4, 6-2.
J. Stirling-Hamilton and J. Valerie—
lost to Winterton and Collins, 3-6, 6-3, 5-7.
beat Ide and Walbourn, 6-4, 6-3.
beat Cruickshank and Puckle, 6-0, 4-6, 8-6.
C. H. Barnes and C. W. Gaton—
lost to Winterton and Collins, 4-6, 4-6.
lost to Ide and Walbourn, 4-6, 6-8.
beat Cruickshank and Puckle, 6-3, 6-3.

ST. BART'S v. CLARENCE L.T.C.

Played at Brixton on Saturday, June 11th. St. Bart's lost by 4 matches to 5, 11 sets to 10, and 96 games to 84.

Doubles.—V. S. A. Bell and J. K. N. Marsh—
lost to H. and J. Martin, 4-6, 5-7.
beat J. and F. Martin, 6-2, 6-2.
C. Pennefather and J. Valerie—
lost to Scott and J. Martin, 6-2, 2-6, 2-6.
S. Hey and G. V. Bull—
beat Green and Philpot, 6-4, 6-4.
Singles.—V. S. A. Bell lost to J. Martin, 3-6, 2-0.
C. Pennefather beat Scott, 6-3, 6-2.
S. Hey beat Philpot, 6-4, 6-1.
J. Valerie lost to H. Martin, 3-6, 6-1, 2-0.
G. V. Bull lost to Green, 4-6, 6-0, 3-6.

ST. BART'S v. HORNSEY L.T.C.

Played at Winchmore Hill on Wednesday, June 15th. St. Bart's won by 7 matches to 2, 14 sets to 4, and 96 games to 62.

J. Stirling-Hamilton and C. Pennefather—
beat G. Lewis and H. Nicholls, 6-2, 6-4.
beat A. Eldridge and Puckle, 6-4, 0-2.
beat W. Duval and Robinson, 6-3, 6-1.
J. K. N. Marsh and H. Marrett—
lost to Lewis and Nicholls, 5-7, 3-6.
beat Eldridge and Puckle, 7-5, 6-2.
beat Duval and Robinson, 6-4, 6-3.
C. H. Barnes and S. Hey—
lost to Lewis and Nicholls, 0-6, 2-6.
beat Eldridge and Puckle, 6-2, 7-5.
beat Duval and Robinson, 6-0, 6-0.

SHOOTING.

U.H.R.A. v. ARTISTS R.V.

June 20th, at Runemede.

U.H.R.A.

	200 yds.	500 yds.	600 yds.	Totals.
C. de Z. Marshall (St. Thos.)	33	32	33	98
A. C. Brown (St. Bart's)	20	32	27	85
C. R. Brown (St. Bart's)	30	28	27	85
A. Pearson (Guy's)	31	30	24	85
A. de Morgan (St. Mary's)	29	26	26	81
H. C. Jones (St. Mary's)	25	31	24	80
J. A. Glover (Guy's)	30	27	23	80
H. R. Beale (St. Thos.)	26	27	20	73
Total	267			

ARTISTS R.V.

Sergeant-Instructor Stirling	29	32	31	92
Sergeant Sharps	31	32	29	92
Private Keeson	33	31	27	91
Private Gillman	29	31	29	89
Private Townsend	29	31	28	88
Lieutenant Armitage	26	31	30	87
Lieutenant Edlmann	29	28	30	87
Colonel Underwood	30	29	27	86
Total	712			

Result.—Lost by 45 points.

U.H.R.A. v. COOPER'S HILL R.I.E.C.

June 23rd, at Runemede.

U.H.R.A.

	200 yds.	500 yds.	600 yds.	Totals.
C. de Z. Marshall (St. Thos.)	33	33	34	90
W. R. Read (St. Bart's)	30	27	22	89
N. Carpmael (St. Thos.)	29	31	27	87
A. C. Brown (St. Bart's)	27	27	25	80
H. C. Jones (St. Mary's)	26	24	28	78
H. de Morgan (St. Mary's)	31	27	15	73
C. R. Brown (St. Bart's)	27	22	22	71
H. Upcott (St. Thos.)	24	25	17	66
Total	631			

R.I.E.C.

Captain Shields	28	26	26	80
J. K. North	27	31	18	76
A. G. Heming	26	29	20	75
E. Lambson	23	23	27	73
R. H. Duke	21	27	20	68
J. C. Wood	26	19	22	67
A. C. Crawley Boeng	30	16	15	61
A. F. Bayley	27	15	12	54
Total	554			

Result.—Won by 77 points.

SWIMMING.

WATER-POLO MATCHES.

St. Bart's v. Cambridge University.—This match was played on May 14th at the Fitzroy Bath. This being the first match of the season the team did not combine well together, the shooting of the forwards being particularly weak; consequently the game resulted in a win to Cambridge by 4 goals to nil. In the team race which preceded the game, Cambridge won by about eight yards. The team was afterwards entertained at dinner.

Team: H. E. Thomas (goal); M. B. Scott, M. G. Winder (backs); A. H. Bloxsome (half-back); A. M. Amsler (captain), E. M. Niall, F. E. Tayler (forwards).

The return match was played at Cambridge on May 30th, and resulted in a win for Cambridge by 5 goals to 1 the same team representing the Hospital as on the former occasion.

After the game the team were entertained at dinner, when the toast

of "Prosperity to the Hospital Club" was ably proposed by the Cambridge captain, H. W. Masterman, and suitably responded to by our captain, A. M. Amsler.

St. Bart's v. Richmond Swimming Club.—Played at Fitzroy Baths May 18th, and resulted in a win for the visitors by 5 goals to 1. Richmond's superiority in front of the goal was particularly marked.

Prior to the polo game a team race of four a side took place, our four being E. M. Niall, M. B. Scott, A. H. Bloxsome, H. G. Thomas. It resulted in a splendid struggle; H. G. Thomas recovered a good deal of lost ground, but just failed to get home by a yard.

Team: H. G. Thomas (goal); M. G. Winder and M. B. Scott (backs); A. H. Bloxsome (half-back); A. M. Amsler, E. M. Niall, F. E. Tayler (forwards).

St. Bart's v. London Scottish V.R.S.C.—Played at the St. George's Baths on May 27th. Play was of an even character throughout the game; the Scottish scored just before call of time, and thus won by 1 goal to love.

Team: C. Dix (goal); M. G. Winder, F. M. Niall (backs); A. H. Bloxsome (half-back); A. M. Amsler, M. B. Scott, F. E. Tayler (forwards).

St. Bart's v. Otter S.C.—Played at St. George's Baths on June 14th, Otters winning by 4 goals to nil. Our forwards were particularly weak in front of goal, and did not shoot well; hence the result. H. G. Thomas played a fine game in goal.

Team: H. G. Thomas (goal); M. B. Scott and M. G. Winder (backs); A. H. Bloxsome (half-back); A. M. Amsler, E. M. Niall, and F. E. Tayler (forwards).

St. Bart's v. Richmond S.C.—Played at Richmond June 27th, resulting in a win for the home team by 2 goals to 1, after a fast game. H. G. Thomas was again conspicuous for his play in goal.

Team: H. G. Thomas (goal); M. G. Winder, M. B. Scott (backs); A. H. Bloxsome (half-back); A. M. Amsler, H. E. Masterman, F. E. Tayler (forwards).

St. Bart's v. Queen's Westminster V.R.S.C.—Played at Westminster Baths on June 29th. Resulted in an easy win for the Hospital by 5 goals to 1, the goals being scored by H. E. Masterman (3), F. E. Tayler, and E. M. Niall.

Team: H. G. Thomas (goal); E. M. Niall, M. B. Scott (backs); A. H. Bloxsome (half back); A. M. Amsler, H. E. Masterman, F. E. Tayler (forwards).

Previous to the game a team race of four a side was swum, E. M. Niall, M. B. Scott, A. H. Bloxsome, and H. E. Thomas representing the Hospital. It was a close one throughout; the home team gained on the second length and kept the advantage to the end, winning by about half a yard.

SWIMMING RACES.

The following are the results of the Club races:

Ten lengths (300 yards) Captaincy Race.—Four swum. H. G. Thomas won easily by 20 yards; A. H. Bloxsome being second.

Two lengths scratch.—H. G. Thomas, 1; M. B. Scott, 2.

Four lengths Handicap.—M. B. Scott, 1; A. M. Amsler, 2.

INTER-HOSPITAL WATER-POLO CUP.

The following is the draw:

St. Mary's v. Guy's A
St. Thomas's v. Middlesex B
London v. University C
St. Bart's—bye.

To be played not later than July 11th

Winner of A v. winner of C.

Winner of B v. St. Bart's.

Not later than July 18th.

Final to be played at Bath Club, July 25th or 26th.

INTER-HOSPITAL TEAM RACING SHIELD.

A St. Mary's v. Westminster. To be played before July 11th.

Guy's v. Bart's. London—bye.

R London v. winner of A.

C Guy's v. Bart's.

To be played before July 10th.

Winner of B v. winner of C. To be played before July 26th.

ATHLETIC CLUB.

The 19th Annual Meeting of this Club was held on June 23rd at Stamford Bridge.

The weather was fine; but, as a stiff breeze was blowing, the times were hardly up to the average.

The attendance was fair, but not what one might expect from the Hospital, which can boast of having won the Inter-Hospital Sports Shield more often than any other hospital. The Senior Staff was well represented.

Mason again distinguished himself by winning the Quarter-mile Challenge Cup for the fourth year in succession, and also by running a dead-heat in the Hundred Yards Scratch with W. M. Fletcher, whom we are heartily glad to welcome as a member of the Hospital. We are sorry to hear that this is the last year that Mason will be eligible to represent the Hospital, and we can only offer him our sincerest thanks for the energy and devotion he has displayed for the welfare of the Club.

Among the new members we must congratulate Fletcher on his performance in the Hurdle Race, which he won with ease in spite of his heavy handicap of 30 yds.; while Bates in the Half-mile, and Lister with the "Weight," gave us great hopes for the future.

The Junior Staff race was well patronised, and we hope this event will be a permanent one.

Our President, Dr. W. S. A. Griffith, gave proof of the interest he takes in the Club by the present of a handsome Challenge Cup for the 220 Yards, together with a prize for the 120 Yards.

At the end of the afternoon the prizes were distributed by Mrs. Griffith, for whom three hearty cheers were raised for the kindly interest she showed in the proceedings of the afternoon.

EVENTS.

100 Yards Level.—An excellent race, and well fought to the end, resulting in a dead-heat between W. M. Fletcher and S. Mason Time, 10½ secs.

Half-mile.—A. L. I. Vaughan, 20 yds. start, 1; T. Bates, 40 yds., 2; W. V. Wood, scr. 3. Seven ran. Bates led until eighty yards from home, when he was passed by Vaughan, who won by ten yards.

120 Yards.—A. Hay, scr., 1; S. Mason, 1 yd. start, 2. There was a good field, but Hay and Mason had the race between them, the former winning a close race.

Putting the Weight.—H. E. Boyle, receives 0 ft., 20 ft. 11½ in., 1; A. E. T. Lister, receives 5 ft. 2 in., 2. In this event eight competed. The handicaps proved too much for the scratch men.

Proctor's 200 Yards Scratch.—T. Bates, 1; H. E. Thomas, 2. The winner, running strong from the beginning, won easily.

Throwing the Hammer.—G. M. Levick, receives 60 ft., 1; T. M. Body, receives 50 ft., 2. In this event again the scratch men had too hard a task set them.

One Mile Handicap.—A. L. I. Vaughan, 10 yds. start, 1; A. M. Amsler, 80 yds., 2. Vaughan went off from the start, and by the beginning of the last quarter had the race well in hand, and won easily.

120 Yards (Junior Staff).—A. B. Tucker, 10 yds. start, 1; S. F. Smith, scr., 2. This produced a good race, Smith just losing the event to Tucker.

Half-mile Handicap (Strangers).—W. A. McEnery, Midx. Hosp. and L.A.C., 40 yds. start, 1. McEnery won easily in 1 min. 59½ sec.

High Jump.—H. B. Butler, scr., 1; T. M. Body, 4 in. start, 2. This event produced a small field, Butler proving himself winner with a jump of 5 ft. 1 in.

Hurdle Race.—W. M. Fletcher, owes 30 yds., 1; A. E. Thomas, owes 8 yds., 2. Fletcher had caught his field at the half distance, and hurdlings in splendid form, won easily.

Quarter-mile Scratch.—S. Mason (holder), 1; E. Wethered, 2. The issue was never in doubt, Mason going ahead from the start and winning by forty yards.

Long Jump.—A. Hay, receives 6 in., 1; B. C. Green, scr., 2. This event was well patronised, but the veterans proved themselves equal to the occasion.

Amalgamated Clubs.

BALANCE-SHEET, 1896-7.

Cr.		£	s.	d.	Dr.		£	s.	d.			
By Members' Subscriptions	...	587	9	6	To Grants to Clubs:							
" Grant from Medical School	...	100	0	0	Rugby Football Club	15	13	3				
" Profit on the JOURNAL	...	10	3	4	Association Football Club	12	5	6				
					Boxing Club	19	4	2				
					Shooting Club	4	8	6				
					Swimming Club	17	0	6				
					Lawn Tennis Club	13	18	11				
					Hockey Club	2	13	1				
					Cricket Club	18	7	6				
					Athletic Club	36	2	3				
									139	13	8	
					To Abernethian Society, 86 members at	£1	1s.			90	6	0
					" Musical Society					20	0	0
					Balance to Maintenance and Reserve Fund					456	13	2
										£706	12	10

Audited and found correct according to vouchers and bank pass book.

PERCY FURNIVALL.
H. MORLEY FLETCHER.
H. M. CRUDDAS.

MAINTENANCE AND RESERVE FUND, 1896-7.

Cr.		£	s.	d.	Dr.		£	s.	d.				
By Balance from 1895-6	...	200	15	10	To Stamps for cheques and commission	...	...	0	8	11	
" Funds from General Account	...	456	13	2	" Subscription to Hare and Hounds	...	...	3	3	0	
" Sale of Retirements	...	5	12	2	" Special Grants to Clubs—Tennis	...	...	3	10	3	
					Swimming	...	...	2	0	0	
										5	10	3	
					" Towels, lamp chimneys, &c.	...	...	2	10	0	
					" Hockey posts	...	...	300	0	0	
					" Rent	...	...	41	5	3	
					" Rates, taxes, and water	...	...	10	0	0	
					" Wages of clerk (two years)	...	...	132	10	3	
					" Wages of ground man, boys, coals, keep of horse, and general maintenance of ground	...	...	8	7	1	
					" Refreshments, luncheons, &c.	...	...	10	12	2	
					" Secretary's petty cash	...	...	144	16	3	
					Balance at bank				£663	1	2

Audited and found correct according to vouchers and bank pass book.

H. MORLEY FLETCHER.
PERCY FURNIVALL.
H. M. CRUDDAS.

Abernethian Society.

THE Mid-Sessional Meeting of the above Society was held on Thursday evening, July 7th, in the Anatomical Theatre, when Mr. T. J. Horder, President, occupied the chair. There was a good attendance both of members and of the nursing staff. After a few preliminary remarks, the chairman called upon Professor Kanthack to deliver his address on "The Art and Science of Medicine." A full report of the latter will be found in the next issue of the JOURNAL, to which the reader is referred.

Professor Kanthack, who was received with loud applause, proceeded to read his address, consisting briefly of an appeal for a more scientific and experimental system in the study of medicine as a whole. Clinical pathology and research work in the wards were to be carefully cultivated in order to maintain the subject of medicine as a science rather than as an empirical art.

On its conclusion the chairman said that it had been suggested that the Mid-Sessional Address in the summer term should not be given in future, but had that been

adopted they would have been deprived that evening of an admirable address.

Mr. Berry then rose, and was greeted with much applause. It was a peculiar pleasure to him, he said, to propose a vote of thanks to Professor Kanthack, firstly because some fifteen years ago he had held office in the Abernethian Society, and secondly because he welcomed his old colleague back again, of whose skill and kindness he had so often availed himself. He was sorry to have to agree with Professor Kanthack that we were behind our fellow-workers in the Continental schools of medicine, but at any rate he thought we were more humane than they. For instance, we at least had men whose sole duty it was to administer anaesthetics, whereas abroad this department was more or less left to chance. He had even seen chloroform given by a hospital porter.

Dr. Garrod seconded the vote of thanks, remarking that the most cordial one would be that Professor Kanthack's advice should bear fruit.

After a short reply by Professor Kanthack the meeting came to an end, and refreshments were partaken of in the library.

Eighth Decennial Contemporary Club Dinner.



THE annual dinner of this club was held at the Café Royal on Wednesday, June 29th, at 7.30. Dr. Hayward in the chair. There were only 30 members present, although considerably more than that number had stated their intention of being present. People who say they are coming and do not do so, only add another tax to the club. After the usual loyal toasts Dr. Hayward rose to propose the health of the club. He explained that he was really the most junior member, for the answer to his application to join the club took the form of a request to take the chair on this occasion. This club had the future before it, but unlike the second Mrs. Tanqueray, it had no past. So far as its brief history went, how did this decennial compare with its predecessors? Most favourably, for we could point to successes in every direction. Gold medalists were so numerous that we might almost be called a club of mono-metallists. An American had once laid down this rule for after-dinner speeches—if you don't strike oil in five minutes stop boring; and Dr. Hayward said he intended to act on this advice.

Mr. Lillie played a pianoforte solo; Mr. Douglas sang "My Love's an Arbutus," and Mr. S. F. Smith sang "A May Morning."

Dr. W. J. Horne proposed the toast of the Chairman, saying that it was a particular pleasure to him to do so, as he had been so closely associated in the same departments of hospital work as Dr. Hayward. The chairman responded in brief and suitable terms. Mr. S. F. Smith sang "I'll sing these songs of Araby," and Dr. L. C. Thorne Thorne gave a recitation.

Mr. Langdon Down proposed the health of the Secretaries. He said that it had been well remarked that no man was secure at a dinner without a speech written out in his waistcoat pocket. He had been feeling at peace with all the world when it was cunningly instilled into his ear that he had to make a speech. So that he had no time for those carefully prepared impromptus appropriate to such an occasion. But what a theme, Prof. Kanthack and Mr. Waring! This club was probably unique in possessing as its secretaries two Jacksonian essayists. He referred to their many services and achievements, and asked the club to drink their health with acclamation, which was accordingly done.

Mr. Douglas sang "Brother Ambrose," and then Professor Kanthack replied. He said it was often his lot to be thanked for things he had not done. Mr. Waring was really responsible for the arrangements of this most enjoyable dinner. The club was suffering from that curable disease of youth, and had not yet reached the stage of senile degeneration. Bart's and this club were to the fore wherever he had been, and wherever we looked.

Mr. Waring reported that the membership last year was 260, and this year had reached 310, so that this bid fair to be the most successful decennial club in time, a distinction which at present rested with the seventh decennial. Turning to the men who had gone abroad, Mr. Waring said he was pleased to hear there was to be a Bart's dinner in India this year, the club was glad to see in its midst that night Mr. Masina, demonstrator of surgery at Bombay, who had recently obtained his F.R.C.S. At his suggestion the health of the Indian Bart's men was drunk, and the Chairman forwarded them a telegram to that effect.

Mr. S. F. Smith sang Schubert's "Serenade." Mr. Masina, in responding, said that he had found Bart's surgical teaching second to none in England, and for the matter of that second to none in the world. Students of tropical diseases owed a debt of gratitude to Prof. Kanthack for his researches on leprosy and Madura foot. He thanked the club most heartily for associating his name with this toast.

The proceedings then closed with an enthusiastic rendering of "Auld Lang Syne."

The Summer Concert.



THE Summer Concert given by the Junior Staff and the Musical Society took place in the Great Hall on Friday, July 8th. On all hands it was pronounced a great success. The programme was shorter than usual, and could therefore be taken at a more leisurely pace, in itself a decided advantage. The items were less classical than last year. Was it on this account that they were more appreciated? Lighter elements

were supplied by Mr. Adams's banjo solo and Mr. Valerie's "coon" songs.

The proceedings started shortly after eight o'clock with Rheinberger's quartet "Allegro Molto," known to all musicians. This was well rendered by Messrs. Pollard and Kniobel, with Ds. Tebb and Womack.

Mr. F. Wood is an old favourite at Bart's concerts. He was in excellent voice in "The sea hath its pearls." As an encore he gave one of Meyer Hcllmann's songs. Mr. Adams's banjo solo by Cammeyer (distinctly the best composer for this instrument) was well received. Two vocal trios by Nurse Ball, Nurse Buckingham, and Nurse Pearce formed a new and acceptable feature. Dr. West sang "Damon," and in response to an enthusiastic encore gave "Mary"—a song which he gave at this concert two years ago. He sang it even better than on that occasion, to say which is in itself very high praise. The Choral Society deserves much commendation for its rendering of the glees which concluded the first portion of the programme. Every word could be clearly heard. The "Widow Bird," by Charles Wood, was quite out of the ordinary; there is always something original to be found in the works of this composer. To paths succeeded Barnby's cheerful ditty, "While youthful sports."

And then the interval. The Summer Concert is usually fortunate in its weather, and this year proved no exception. To those unequal to the fierce struggle for refreshments which took place in the Library, the Square proved a quiet refuge. We were sorry to note that the more rigid system for distributing refreshments which has been in vogue the last two years was on this occasion given up for the old haphazard plan.

The second part began with Schumann's quartet "Andante"—the only quartet he ever wrote, and equally famous with his Quintet performed last year. Nurse Ball sang "Nymphs and Shepherds" in her usual admirable style, and received an undeniable encore. It is sad to think that this is Nurse Ball's last appearance at these concerts; she has indeed been one of the mainstays of the Musical Society.

Mr. Valerie's "coon" song, with two men humming an obligato, was quite one of the hits of the evening. His fine voice was much appreciated in this, as in the encore song, also of the "coon" order.

Dr. Womack then played a violoncello solo with great taste. Mr. S. F. Smith has seldom been heard to such advantage as in Hutton's "Come live with me," and we congratulate him on a really admirable performance. He gave as an encore a song by Jensen, which was also excellently rendered.

The Choral Society's glees, "Jack and Jill," went with a good swing, and the performance closed with the traditional Junior Staff chorus. "Sound the pibroch" was the one chosen this year. The unintelligible Gaelic refrain was carefully translated at the foot of the programme as "It comes upon me to arise," presumably a reference to arduous night duties of the Resident Staff. Be that as it may, the chorus was much appreciated and an encore demanded. Equal to this as to other emergencies, they gave an old English ditty, "Twankydlilo," which went even better. And then with an abbreviated version of "God Save the Queen," a successful evening came to a close.

Our thanks are due to Mr. Pollard and to the Junior Staff Secretaries for the concert, Mr. S. F. Smith and Mr. R. de S. Stawell for the excellent arrangements for the evening's enjoyment.

Review.

INFLAMMATION OF THE BLADDER, by C. W. MANSELL MOULLIN, M.D. (Oxon.), F.R.C.S. (London): H. K. Lewis, 5s.

In this volume Mr. Mansell Moullin's aim has been to show that inflammation of the bladder in the great majority of cases depends upon septic infection, and that the only rational treatment of the disease must be on the broad lines which have been so definitely laid down for similar conditions in other organs and tissues. The author makes small claim to originality, and the book contains few records of original observations, but the work of others has been carefully reviewed, and the whole subject is dealt with in a practical and scientific manner. The chapter on the bacteriology of cystitis is of particular value, for as far as we are aware few English observers have followed this line of investigation, and few English text books devote even one page to this important matter; yet it is only upon a due appreciation of the causes that rational treatment can be applied.

To the practitioner the most interesting part of the work will be the sections dealing with treatment; and here the one great principle is absolute asepsis.

Directions for the cleansing of catheters and for washing out the bladder are given most minutely. The advantages and disadvantages of the various antiseptics are given fairly and with clearness, but we look in vain for new light or suggestions to help in the treatment of those distressing chronic forms of the disease such as the tubercular.

The book is distinctly valuable, thoroughly orthodox and safe; moreover the author is able to give a reason for whatever statements he makes or treatment he employs.

New Productions.

"TABLOID" BISMUTH SUBGALLATE gr. 5 (0.324 grm.). (London: Messrs. Burroughs, Wellcome & Co.)

The internal administration of bismuth subgallate has lately received considerable attention. It has been favourably reported on in various forms of diarrhoea and in fermentative dyspepsia. We understand that it has been spoken highly of as a therapeutic agent in typhoid, gastric catarrh, and in the treatment of Asiatic cholera.

Bismuth subgallate is insoluble in water or alcohol, and it is best administered compressed and in a dry state. The very rapid disintegrating property of "Tabloid" Bismuth Subgallate, and its great convenience, especially when, as in chronic cases, it is necessary that the doses be taken regularly and for a considerable period, make it the most reliable and acceptable form for the administration of the drug.

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"Tabloid" Hypophosphites Compound, gr. 3, contains gr. 3/4 of Strychnine Hypophosphite, together with the combined Hypophosphites of Calcium, Potassium, Manganese, Iron, and Quinine, and is equivalent to dr. 1 of standard Compound Syrup of Hypophosphites.

Pathological Department of the Journal.

SPECIMENS sent by subscribers to the JOURNAL will be examined in the Pathological Laboratory, and a report furnished under the supervision of Dr. Andrews, at the following rate:

Ordinary examination, Bacteriological or Pathological, such as tumour, membrane, or sputum . . . 2 6
Ordinary (qualitative) urine examination . . . 2 6

Any further report will be charged at a special rate. If a mounted specimen be desired an extra charge of 1s. will be made. If a telegraphic report be required the cost of the telegram will be charged in addition.

Specimens must be accompanied by the fee and a stamped addressed envelope, in which the report will be sent as soon as possible. Specimens, with, if possible, a short history of the case, must be addressed to "The Manager of the Journal," with "Pathological Department" written in some conspicuous place on the wrapper.

On application to J. Russell, Museum Assistant, a set of bottles containing hardening fluids, and ready for sending away by post, can be obtained on remitting a postal order for 2s. 6d.

Appointments.

BILL, J. F., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the London Temperance Hospital.

BLAKENEY, H. T. W., M.R.C.S., appointed Police Surgeon to the Dorking Petty Sessions Division, vice H. Chaldecott.

CORNISH, S., M.B., B.S.Lond., appointed Surgeon to the Steamship Historian, Harrison Line.

DICKSON, A. W., M.R.C.S., L.R.C.P., appointed Senior House Surgeon to the Royal Infirmary, Halifax.

EVANS, T. H. FENCOTT, M.R.C.S., L.R.C.P., appointed Medical Superintendent to the Small-pox Lazaretto, Rietfontein, South Africa.

HODGKINS, A. E., M.R.C.S., L.R.C.P., appointed House Physician to the West London Hospital.

WORTH, C. A., M.R.C.S., L.R.C.P., appointed House Surgeon to the Loughborough and District General Hospital.

Examinations.

UNIVERSITY OF CAMBRIDGE.—Second M.B. Examination (Part 2, Anatomy and Physiology).—F. M. Boulton, W. M. Fletcher, B. B. Sapwell, R. T. Worthington.

SOCIETY OF APOTHECARIES.—Anatomy and Physiology: S. de Carteret, C. D. A. Dowman, G. H. Watson. Physiology.—A. B. Edwards. Materia Medica and Pharmacy.—C. G. Meade.

Births.

CUTFIELD.—On June 6th, at Morton House, Ross, Herefordshire, the wife of Arthur Cutfield, B.A., B.Sc., M.R.C.S., of a daughter.

ECCLES.—On June 20th, at Hertford Street, Mayfair, W., the wife of A. Symonds Eccles, M.D., of a son.

MACKENZIE.—On June 26th, at Lansdowne House, Ryde, I.W., the wife of K. W. Ingleby Mackenzie, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

NEWINGTON.—On May 11th, the wife of C. W. H. Newington, M.R.C.S., I.R.C.P., at The Grange, Edenbridge, Kent, of a son.

REECE.—On June 15th, at G2, Addison Gardens, W., the wife of Richard J. Reece, of a daughter.

SURRIDGE.—On June 6th, at Knutsford, Cheshire, the wife of E. N. Surridge, M.B., B.C., of a son.

Marriages.

NEWBOLT—ASHBURNER.—On June 18th, by special licence, at St. Peter's Church, Kirk Onchan, Isle of Man, by the Rev. S. A. P. Kermode, M.A., Vicar, assisted by the Rev. Canon Savage, Incumbent of St. Thomas's, Douglas, and the Rev. F. Caywood Deardon, B.A., Vicar of Bamford, and the Rev. Henry Sharland, Curate, George Palmerston Newbolt, M.B., F.R.C.S., of 42, Catherine Street, Liverpool, only son of the late K. Kent Newbolt, Esq., of Weymouth, to Mary, only child of Robert Ashburner, Esq., of Douglas, Isle of Man.

ACKNOWLEDGMENTS.—Guy's Hospital Gazette, Nursing Record, L'Echo Medical, St. George's Hospital Gazette, St. Thomas's Hospital Gazette, St. Mary's Hospital Gazette, The Stethoscope, Giornale d'Igiene, "M.R.I." Oxyoscope.

St. Bartholomew's Hospital



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NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C., BEFORE THE 1ST OF EVERY MONTH.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial or otherwise, relative to Advertisements ONLY, should be addressed to J. H. BOOTS, Advertising Agent, 29, Wood Lane, Uxbridge Road, W.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d., or carriage paid 2s. 3d. cover included.

St. Bartholomew's Hospital Journal,

AUGUST 14th, 1898.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

"**R**ARACELUS is not dead." Few of those who listened to Professor Kanthack's stirring address at the Abernethian Society could have helped feeling somewhat guilty as he made his onslaught on empiricism in Medicine. Of course we must be empirical in part, or our patients would scarcely be "an unconscionable time a-dying" while waiting for rational treatment. But this does not diminish the force of Professor Kanthack's contention that every objective method of investigation must be carefully cultivated if advance is to be made. Diagnosis may thereby become mechanical, but it rests on surer foundations; a skiagraph will now reveal a renal calculus in a case where formerly the highest clinical skill would have hesitated to diagnose its presence. In the

latter instance it would have been at best but a matter of opinion; this objective method demonstrates it as a matter of fact.

Readers of Montaigne will remember how shrewdly he criticises the physicians of his day on this very point:—"A gentleman was at Paris lately cut for the stone by the order of the physicians, in whose bladder, being accordingly so cut, there was found no more stone than in the palm of his hand; and in the same place a bishop, who was my particular good friend, having been earnestly prest by the major part of the physicians in town, whom he consulted, to suffer himself to be cut, to which also upon their word I used my interest to persuade him; when he was dead and open'd it appeared he had no stone, but in the reins . . . I conclude chirurgery to be much more certain, by reason that it sees and feels what it does, and so goes less by conjecture; whereas the physicians have no speculum matricis by which to discover our brains, lungs, and liver." In fact, the essay (chap. xciv) amounts to a strong protest against the Paracelsian method. Not that Montaigne had much hope for or belief in the profession; "whilst they were afraid of stopping a looseness lest they should put him in a fever, they killed me a friend that was worth the whole pack of them put altogether."

The importance of research methods is so great that this aspect of the question will bear a little over statement; for we think it will be admitted that Professor Kanthack, like all special pleaders, has over-stated the case. It is often a pleasing characteristic of scientific men that they are aware of the beam in their own eye rather than of the mote elsewhere. Professor Kanthack deprecates the condition of research work in England, while an eminent German Professor of Botany is averring that before long Germans who really want to research will have to go to England or America! And the way that Professor Kanthack falls foul of our reviewer of *Rough Notes on Remedies* shows he only intended to see one side of his remarks. That our reviewer considered it "a melancholy fact that an old-fashioned practitioner . . . will succeed in effecting a cure where a man well versed in motor points and counter-staining will

cut but a sorry figure," in itself indicates his own predilection for the scientific method. It is a melancholy fact that some of the best men, by taking a one-sided view of their work while at the hospital, do fall in what after all in general practice is the most important particular—treatment. Our reviewer was merely pleading that they should take a broader view. But we will not elaborate this point any further, lest Professor Kanthack, in his zeal for reform, should consign us to the same awful fate that he has marked out for that rash man.

Seriously, what we mean is this, that in his anxiety to insist on the undoubted value of laboratory methods Professor Kanthack might be considered by the unwary as unduly depreciating clinical methods. For much that is purely clinical depends on accurate observation and deduction. Few, for instance, would care to-day to depend on the microscope alone for the diagnosis of diphtheria, and he would be a bold man who would send down a report from the laboratory that a given specimen was the blood of pernicious anemia.

These may be small points, and it is somewhat ungracious to carp at an address so admirable in design and execution. Only those who have been associated with the working of the Abernethian Society can have any idea how much the Society owes to Professor Kanthack's assistance and advice on many matters. The evenings for the communication of original research to which he referred were arranged at his suggestion, and have been the occasions on which some of his own researches have been made public. And now he has added to the sum of our indebtedness by this thoughtful and stimulating mid-session address.

The Science and Art of Medicine.

The Mid-session Address delivered before the Abernethian Society on July 7th, 1898.

By A. A. KANTHACK, M.A., M.D., F.R.C.P., Fellow of King's College and Professor of Pathology in the University of Cambridge.

IT is a pleasure and an honour to me to meet you here to-night in the lecture hall of my old school, where formerly I have both listened to the words of my teachers and have myself made my first serious endeavours of teaching others. You have asked me to address a few words to you, and naturally I have chosen a subject which greatly occupies my mind, viz. the "Science and Art of Medicine."

These words may suggest to you that I propose to give you an exhaustive historical survey of the development of medicine since the days of Hippocrates. This is not my intention, for three reasons. Firstly, I must confess, to my shame it may be, that I know too little of the work of the masters of the past to appear before you with an instructive discourse on the growth and rise of medicine; secondly, even if I did know enough, I should feel that I was encroaching upon the privileges of Dr. Moore, who is always ready to disclose the arcana of the past, and upon those of Mr. D'Arcy Power, who has a profound knowledge of mediæval medical history; thirdly, not having yet reached the age of reflection, it appears

more to me to study conditions as they are, and as they ought to be, rather than as they have been.

"Let the dead bury their dead," those words were spoken to one who still had the future before him. To-night therefore let us put the hand to the plough, and consider the actual position of medicine and its study in this country, looking back only to learn from the errors of the past the shortcomings of the present, for what was always been the guide and mentor of what is and should be. I take medicine in its widest sense to include surgery and midwifery, which, though eminent and important subjects, are after all merely specialised parts of general therapeutics. I have chosen the subject "Science and Art of Medicine" not only because it is one which I have deeply at heart, but also, if you pardon the arrogance of a younger man, because I consider it my life's mission to devote all my energy to develop the scientific spirit in medicine, it ever so humbly, by constant appeal to objective methods against which the *ipse dixit* of authority and experience counts but little. In aiming at this, I follow out the precepts of my great master, the immortal Virchow. When I look round and compare ourselves, our institutions, and our methods of teaching with what exist in Germany, France, Italy, Denmark, and even in America, I feel that reform is wanted, that we have, festered on the past too long, and that we must rouse ourselves. Those who are my seniors will see in these words the impetuous ardour of youth, ever finding fault, itself infallible. But older heads are beginning to recognise that the glory is departed from Israel. We have giants like Jenner and Lister, and no doubt the glory of children are their fathers, but we have not made full use of their great discoveries. When the State or the Colonies cry for help, we shake our heads, incapable of giving the assistance asked for. The triumphs which should have been ours belong to others. I am not a pessimist; also I am able to substantiate my charges. We must be made to recognise that medicine is a biological science. I have as yet only a few years of independent activity behind me, but them I have spent in teaching, as well as I could, the few who have come to me the application of scientific methods in the practice of medicine. Dealing with masses of students and attempting to break down traditions, progress is slow. The Abernethian Society has assisted me, and I look to it for further help.

When Mr. Stephens was your president he made a new departure, for he introduced meetings at which specimens were shown and original research communicated. So far as I know those evenings have been a great success, and to my mind they are much more useful than the ordinary meetings. Instead of asking a few men to lecture on set subjects or to give you an hour's coaching free of charge, you should encourage original thought and research. I was, however, surprised to hear that recently at one of the meetings of the Society a voice was raised against those special evenings by an old member, young in years, maintaining that they were little short of rubbish, and that the old style of reading second-hand papers was more useful. I was still more surprised when I was told that this young man's criticisms were allowed to pass without an adequate reply. I regret that I was not there to give the retort courteous. This episode is an instance of the imperfection of medical education in this country.

I received another shock when I read in our JOURNAL a review on a book entitled *Rough Notes on Remedies*, in which the enlightened reviewer, who I hope is present here to-night, was permitted to write the following lines—"It is a melancholy fact that an old-fashioned practitioner who employs only a few drugs, but knows them and their combinations practically, will succeed in effecting a cure where a man well versed in motor points and counter-staining will cut but a sorry figure." This criticism is as rough as the notes on remedies themselves, but it seemed amazing to me to read it in the JOURNAL belonging to St. Bartholomew's Hospital. Let us be thankful that the reviewer has supplied the old-fashioned practitioner with only a few drugs, and let us wish that the reviewer when suffering himself from a disease requiring a subtle diagnosis and rational treatment will seek his old-fashioned friend with his few drugs, for probably there will then be an end of this critic.

There is still a complete misunderstanding regarding the relation of the laboratory to medicine. "In physics and mechanics the notions of the Greeks were very generally pervaded by a great fallacy, which obtained its complete and most mischievous development amongst the mediæval schoolmen, and the remains of whose influence can be traced even at the present day—the fallacy of a double system of natural laws; one theoretical, geometrical, rational, discoverable by contemplation, applicable to celestial, æthereal, indestructible bodies, and being an object of the noble and liberal arts; the other practical, mechanical, empirical, discoverable by experience, applicable to terrestrial, gross, destructible bodies, and

being an object of what were once called the vulgar and sordid arts." This fallacy of a double system certainly exists in medicine at the present time. Distinctions are drawn between the good practical man and the theoretical man, between pathology for physicians and pathology for pathologists, where distinctions do not and cannot exist, and still you may hear in some quarters of objections raised against a scientific or rather a laboratory training for the medical student. I have heard the statement made that it is the duty of medical schools to educate physicians, surgeons, and midwives, and not pathologists, bacteriologists, or physiologists. Why, then, should the money be wasted on laboratories?

The relation of science to medicine therefore requires closer definition. My object to-night is to make a strong appeal in favour of laboratories, and to urge you to spend as much time as possible in the laboratories. Whatever idea you may have regarding a patient, if your idea can be demonstrated objectively it is your duty to do it, even though it seem altogether unnecessary.

We must begin by considering the true position of medicine as a profession, or rather as a calling. Commonly we speak of the art of medicine when we should say the practice of medicine. The treatment of disease is a technical matter which, if a correct diagnosis is supplied, in most cases is comparatively easy, in fact often so easy that even difficult cases, once recognised, could be treated as well by a sister or nurse with years of experience as by a physician of the same standing. In surgery experience and natural skill are everything. The surgeon in so far as he operates and does his ordinary routine work is an artisan. We may say with some justice that practical medicine is a technical industry.

A technical industry may be learned in two ways: first, merely by experience based on a rule of thumb principle, which is the English way; secondly, by experience based on systematic research, which is the German way. This distinction will be readily understood if we briefly consider the relation of some technical industry like brewing to research.

The theoretical and practical problems in this industry go hand in hand, and are frequently inseparable. This has been amply demonstrated by Hansen's labours at Copenhagen. Before he commenced work the yeast question in brewing was a perfect enigma, and, as he himself has said, it was the weakest point in brewing. To cite his own words, "when difficulties occurred in a brewery a change of yeast was introduced from another brewery, and frequently the yeasts from several breweries were mixed. Sometimes a good result was obtained in this way, sometimes also a bad one, and often the result was worse than that which induced the brewer to try a change of yeast. In all cases he was working completely in the dark—in short, he did not know in the least what he was introducing into the wort." Hansen, following in the footsteps of the great Pasteur, and ever keeping in mind that brewing is but the practical application of biochemical principles, took up the scientific aspect and worked indefatigably until he had discovered the mystery of practical brewing. Ruthlessly he overthrew empirical beliefs, some of which were almost centuries old; he showed how to avoid disease in fermenting liquors, and in fact he revolutionised the industry of brewing and fermentation generally. Hansen's work, just like that of Pasteur's great genius, has had the most beneficial influence upon medicine. Infection is a form of fermentation, and its result a form of intoxication, and until we understand fermentation we cannot hope to understand infection.

The discoveries of Hansen, of Fischer, of E. Buchner, and others have given us new ideas regarding the possible nature and action of the bacterial poisons which are responsible for many infective fevers. Through these researches we are gradually approaching the question which must occupy every thinking man: What are the substances which cause pneumonia, diphtheria, tetanus, and so forth? How exactly do they work? If we once know their chemical nature and formula, we may hope to find methods of cure and prevention which surpass the triumphs of the antitoxic treatment of diphtheria. It has been said by a physiologist lecturing at the Royal Institution that a monument should be erected to honour the nimble frog as a saviour of human suffering. This beautiful little animal, with its fine muscles and ever-beating heart, is inseparably associated with physiology, pathology, and pharmacology, the fundamental sciences of medicine. No doubt such a monument would horrify the intolerant and ignorant antivivisectionist. Yet I think that however great the distinguished services of the frog are, the yeast cell is as deserving, for it is the study of fermentation that has led to the most wonderful discoveries in medicine during the last fifty years, which have saved thousands of lives in almost every country.

But to go back to Hansen. Denmark recognised the enormous value of the systematic scientific researches which Hansen and his

pupils had carried out and are still engaged in. Laboratories were opened to brewers thoroughly instructed in the scientific foundations of their technical industry; not by lectures merely and examinations, but by real laboratory work. In Germany also, as well as in Austria, technical laboratories sprang up; and the laboratory study of fermentation became a serious matter. The result is that in those countries they are reaping a well-deserved harvest. In this country, as usual in such matters, reform is slow, because we draw distinctions between practical and scientific men. Gradually, after years, when other countries have already made rapid strides, a few enlightened men in vain recognise that things are not as they ought to be. For years young men have gone to Copenhagen, Berlin, Vienna, or elsewhere on the Continent to study the scientific side of brewing, and possibly they may have to do so for many more years, unless Mr. Chamberlain comes to the rescue. In England the young brewer is taught in the most inadequate manner by disciples of the Institute of Brewing, which is governed by tradition; he is not taught the cultivation of yeasts, or how to diagnose disease; in fact, all he learns is, putting it briefly, that when anything goes wrong he must consult the Institute of Brewing. Quite recently the question was raised whether a school of brewing on the Continental pattern, i.e. a genuine research laboratory, was a necessity. One would have thought that the answer was obvious.

But let us hear what the *Brewers' Journal* says. I wish to quote it because almost every word I say now *mutatis mutandis* can be applied to the case of medicine. That journal writes: "Are not the wants as regards education already fully met? The functions of an institute suitable for the brewing trade should be confined to the dissemination of useful information, to the discussion of suitable questions, and to the interchange of ideas calculated to benefit the trade. It should invite eminent foreigners to give lectures and to read papers, and it should set the curriculum of education which young men desirous of becoming brewers should be asked to undergo. This curriculum should be expressed in terms of an examination conducted by the institute, and the institute should have the power of granting certificates. The surest way of keeping the teachers up to the mark would be to let them each strive to pass the greatest number of students." The *Journal* further thinks "that the school of brewing would be an endeavour to copy that which has been done abroad, but it would be well before English brewers commit themselves to inquire as to what really has been effected by these schools as compared with the teaching hitherto obtainable in England."

All this is so characteristic of the English attitude against the necessary combination of technical practice with scientific research that I have delayed so long over the subject of brewing. We find the same apathy in other technical industries, as, for instance, the chemical industry, or even engineering. In our country no opportunity is given to learn, no attention is paid to systematic scientific research and technical education. While here everything is sacrificed to abstract mental improvement and useless examinations, abroad the scientific training is meant for real use and application.

Let me read out to you what Sir Philip Magnus wrote in a recent number of *Nature*:—"It is not only in the size and arrangements of buildings devoted to science that we in England are so far behind our German and Swiss neighbours, but also in the organisation of the instruction. In some of our best schools at home each professor has to do the work of three or four experts abroad. It is the combination of professional work and the co-ordination of teaching that make the German university so powerful a machine not only for scientific training, but also for discovery and research."

No one can doubt that Germany has made enormous strides in recent years, and our leading men of science have recognised this, and they attribute this fact mainly to the existence and encouragement of research in Germany. In a little book by Mr. Williams, entitled *Made in Germany*, we read:—"The great cause of German success is an alert progressiveness, contrasting brilliantly with the conservative spirit of ourselves. It is all very well to run an old-established business, but you must diligently and continuously be striving to bring its methods up to date. The mass of English people still believes that what was good enough of old is good enough yet; ignores the constant change of condition which renders the nature and wants of the market as variable as the weather. In Germany they are ready at all times to make a new departure."

The same progress may be observed in other Continental countries, though nowhere so strikingly as in Germany. One country, however, deserves our unbounded admiration—that is little Denmark. She has proved to the world that she can take her earnest share of the work of progress, and as Hansen—himself a Dane—says with just pride, "Notwithstanding all political reverses, the little nation is still able to develop and carry out independent scientific research."

To give you an instance of the progressiveness and adaptability abroad, of the readiness to apply scientific facts to industry, I shall now mention to you the marvellous work of Professor Bang. Denmark depends greatly upon its export of milk, butter, and cheese; and when bacteriology proved the close etiological relation between phthisis and the milk of tuberculous cows, the Danish Government took action in combating tuberculosis amongst cattle. Tuberculin was used for the purpose of diagnosis, and any cow, calf, or bull which reacted with fever to an injection with tuberculin was at once isolated. "By merely separating, therefore, the sound from the reacting animals, feeding the calves from the first day of life on boiled milk, submitting once or twice a year the healthy animals to a fresh test, placing such as react on the other side of a partition, and purchasing only animals that have stood the tuberculin test," Bang has succeeded in changing herds that had been markedly affected into herds which are quite healthy. The tuberculin used in the country is manufactured in a laboratory which receives from the Government a subvention for the purpose, and so great has been the demand for it that sometimes difficulty has been experienced in furnishing enough. In this manner over 6000 herds have been treated, and there are now almost free of the disease. Let us compare that with what goes on among ourselves. We have as yet got no further than official reports of Royal Commissions.

Time forbids that I should allude to other countries where this method of diagnosing and treating tuberculosis is recognised and applied. What I wish to prove to you is the quickness with which poorer countries seize the knowledge which has been acquired by patient, laborious, and often disinterested work, and use it for the good of the individual, the community, the State, and its commerce, not to mention the animals themselves. Why do not we recognise the benefit which must accrue from such progressive adaptation? The answer is because we do not know what systematic research is, and the State has not yet taken in the situation.

Let me give you a few more examples to illustrate our deficiencies. Rinderpest plays havoc in South Africa, decimating the cattle and ruining hundreds of people. Professor Koch had to go out to bring the assistance which the mother country could not give. The vaccinations against cholera in India had to be carried out by a Russian, M. Haffkine. When the bubonic plague broke out, Germany, France, Austria, Russia, Italy—they all sent out commissions to investigate the disease in its home. These commissions consisted of leading men of science, including such well-known names as Pfeiffer, Gaffky, Lustig, Gohn, men of established reputation and of research. We, on the other hand, have watched the approach and the progress of the plague, but serious investigation was left to others. When plague appeared in India the Indian Medical Department was practically unprepared and unacquainted with the bacillus of bubonic plague. Our friends in India on the whole have failed to make use of their opportunities. Thus the cholera vibrio was discovered by Professor Koch, the malarial parasite belongs to France and Italy, the discovery of an antitoxin for snake poison was left to M. Calmette. Hardly any researches on leprosy or on malaria have come from India. No doubt there are a few stray papers written here or there, but no systematic and continued research has been carried on, while other countries have always been busy erecting research laboratories in their colonies. I do not blame the individual men who go out to India or elsewhere—it is not their fault, poor fellows. They have not been taught the methods of research; they pass from institutions where research counts little into an atmosphere of statistics and sanitary reports wherein research counts still less; moreover, they are generally overworked in a climate which is hardly stimulating. Research work to bear fruit must be systematic, and not spasmodic. How different are the conditions in the German and French colonies. The Germans and the Frenchmen may be bad colonisers, but they recognise the importance of the public health, of studying the endemic diseases, and of preventing them if possible. We may say without fearing contradiction that the work which has come from German East Africa during the few years that the Germans have been in possession is of greater value than all the work which has emanated from India for years. You must understand, of course, that I am speaking of medicine. It was only recently that Professor Koch has returned from a long voyage, passing from the Cape, where he had studied rinderpest, to India, where he studied plague and advised on other endemic diseases, and going thence to German East Africa, studying malaria and other endemic affections in man and animals. He returns having given a fresh impetus to German medical research, and having conquered the rinderpest in a few weeks.

Why do we not send out men? For two obvious reasons, viz. (1) as yet they have but seldom been required for the purpose of carrying out systematic research, and (2) when they are required we

have no men to send out; we do not train research men. That means that our medical education is not all it should be. That is exactly what I wish to say, although I know it is not easy to say it here within the precincts of the ancient, royal, and religious foundation of St. Bartholomew's Hospital. My criticisms, however, are not directed against any particular school or university, but against our whole system of medical education.

The teaching of medicine is in the hands of medical schools, and I feel strongly that it is partly for this reason that the scientific side of medicine has not been fully recognised. Being attached to hospitals, and the teaching having been evolved from the principle of apprenticeship, practical medicine, practical surgery, and practical midwifery are recognised as the leading subjects. On the road to these subjects spasmodic research in physiology, anatomy, or pathology may be done, but mainly for the distinct purpose of "getting on." Our university schools are naturally modelled after the hospital schools. This is the fault of tradition, and of old age. A hospital medical school has a perfect right to say, it is not our duty to bring up experimental physiologists, pathologists, or bacteriologists—that should be done by the universities; but alas! the latter follow the old traditions. What I wish to urge is that on their own lines the medical schools should encourage systematic research, for practical medicine is essentially the technical application of scientific principles, and therefore requires a sound, though no doubt often specialised, scientific foundation.

Medicine began with treatment, and during the Middle Ages outside therapeutics very little indeed was taught or thought necessary, so that for centuries there existed no science of medicine. It was not until Vesalius appeared that medicine showed any tendency to pass from a mere empirical "healing art"—if indeed we can call mediæval treatment an art—to a form of natural science; but not until the end of last century were experimental methods introduced, i. e. since about 1780 medicine has gradually passed from a descriptive science to an experimental science.

How far the art of healing could progress, and actually did progress, without almost any knowledge of anatomy and physiology, the study of the therapeutics of Hippocrates and his disciples will teach us. This may be a consolation for those who find great difficulty and obstacles in acquiring the necessary knowledge of anatomy and physiology. Hippocrates was, as Galen said, *πάντων ἡμῖν τῶν καλῶν ἡγεμῶν*, "our guide in all that is beautiful," and for centuries he has been called the *divus pater medicinarum*, mainly because he recognised a scientific principle, viz. that "the body naturally resists disease, and that diseases have a tendency to cure themselves," and that "interference is only necessary to assist or inhibit these tendencies." *Quo natura curat, no tendere oportet*, "follow nature, she will heal;" "the physician shall help, but in no case injure;" these are axioms of the Hippocratic school. Hippocrates severed medicine from philosophy and theology, and rejecting all that was supernatural, he discovered the one principle which guides medicine now, and must ever guide it. In spite of Aristotle, Herophilus, Erasistratus, and Eudemus, who all studied anatomy, no progress was made, but on the other hand a marked reaction to empiricism recurred. Hippocrates and his enlightened followers knew the scientific principle, but not the scientific method. The systematic pursuit of anatomy no doubt would have led to marvellous results, but it was then as it is now. The average mind, always ready to accept whatever offers some promise of success, had expected immediate results from the study of anatomy, so that disappointment and disgust were bound to follow, and the very disciples of the early anatomists founded the empirical school, which, ruling for centuries, has done an infinite amount of harm to medicine, and even now delays its progress. The empiricists restricted medicine, and the study of medicine, exclusively to the attainment of practical and tangible results. They considered it useless to attempt a minute analysis of the ultimate causes and processes of the phenomena of disease. Their axiom was *non interesse quid morbum faciat, sed quid morbum tollat*, "it matters not what produces the disease, we wish to know how to remove it." This attitude towards anatomy—the very foundation of medicine—was fatal, and has delayed its progress for at least 1500 years. With Professor Samuel we may pause in amazement and ask how was it possible that the fortunate discovery of a scientific principle could be followed by such narrow and unscientific prejudice? Bitter experience has taught mankind that only continued and searching labours can lead to knowledge, and that the road to knowledge which a natural science must tread is very circuitous, and for years, nay, for centuries, may appear to lead nowhere! Hippocrates had freed medicine from the fetters of theology, and the precocious study of anatomy immediately followed upon this; but the prize was rejected, and 1500 years later anatomy

had to be reconquered after a long and laborious struggle against religious sentiment and prejudice. This is a cruel lesson which history has taught, and yet there is a tendency to turn a deaf ear to it.

Now, true to my promise, I shall not take you over the whole development of medicine as a science. I wished to remind you how a golden opportunity may be lost by narrow-mindedness and want of intellect. What happened in the case of anatomy has happened with physiology. Galen was the actual founder of experimental physiology, and even without anatomy, chemistry, physics, and microscopes, great advances might have been made. But no, it was not to be; empiricism ruled everything, and systematic research was not carried out upon the lines suggested by Galen.

With the resuscitation of anatomy medicine became exacter, but it took a long time before anatomical research became general. Thus in Vienna, in our times one of the most progressive centres of medicine, between 1404 and 1498 only nine bodies were dissected, and the dissections were generally performed publicly in this manner: the barber cut, the professor demonstrated, dissecting being too low and humiliating a task for a professor. Vesalius recognised the absolute necessity of scientific study, and fought against book learning. He vigorously attacked the accepted infallibility of Galen, whose teaching by actual inspection and personal experiment he proved to be wrong. Through his courage and martyrdom, and his victory over transcendental theories, he gained the day for the systematic study of anatomy, and in 1566 the University of Salamanca recognised dissections as indispensable. Fortunately the requirements of surgery, which had been emphasised through the introduction of gunpowder, insured the continued study of practical anatomy. Before Vesalius, in the fourteenth century, Guy de Chauliac already wrote: "*Primo enim opus est, ut chirurgus cognoscatur res naturales, præcipue anatomiam; nam sine ipsa nil est faciendum in chirurgia.*" But even an age which could boast of an Ambrose Paré did not apply scientific methods to test the value of a treatment, but was guided by theoretical prejudice. It was by a mere accident and not by an experiment that Paré discovered his simple treatment of wounds. So it had been for centuries; diseases and inadequate or erroneous methods of treatment went on unchanged, because there was no science of medicine, and often a sheer accident brought a happy turn for the better. However, when anatomy was placed on a sounder basis, and when Harvey, after having confessed at the beginning of his fruitful life *motum cordis soli deo cognitum esse*, established the doctrine and also the unalterable fact of the circulation, and thus restored experimental physiology, not merely by his results, but, what is much more important, by his method, then we perceive the early dawn of the science of medicine.

Vesalius and Harvey were men of science. Compare with them Paracelsus. This strange man has been called the true prophet of modern medicine as of modern chemistry, but I cannot believe that he shared the higher feelings of the true masters of medicine. He was an alchemist, and professed that "true alchemy has but one end and object—to extract the quintessence of things and to prepare arcana, tinctures, and elixirs which may restore to man the health and soundness he has lost." Unlike Vesalius and Harvey, he was not a scientist, and his methods were crude and irrational. Yet Theophrastus Bombastus Paracelsus von Hohenheim, ever blowing his own trumpet, styled himself the reformer of practical medicine. He certainly fought against book learning and Galen's dogmas—and for this honour is due to him—and he believed in Nature's methods of healing; but, being devoid of the true spirit of inquiry, he contributed but little to the actual progress of medicine. With him Nature's methods of healing were artificial and extrinsic. Indeed, I believe that he has obtained the position which many concede to him merely by his fine speeches, mainly about himself and his alchemy, and always doubting others but never himself, he often judged them rightly, himself too well. Science was nothing to him; art, i. e. his art, everything; the value of anatomy and physiology he denied altogether. Characteristic of such a man is that he said, "So far as a knowledge of remedies for epilepsy and jaundice is concerned, it matters not where brain and liver are!" He believed that Nature has a remedy for each disease; the whole world is a pharmacy, and God the first pharmacist, since He created the plants, which all are remedies. Diseases are to be named according to the remedies used. Thus we should say, this is *Morbus terebinthus* and that *Morbus helleborinus*, and not this is *coriza* and that *catarrh*! This is grotesque; yet Paracelsus is not dead, he still lives amongst us.

The awakening of anatomy and physiology, however, has led to progress in medicine; not, indeed, in a straight and direct line. No, the advance was slow, and often what seemed a short cut led nowhere,

or into a quagmire which threatened to absorb those that had been betrayed to tread upon its false foundation. For three hundred years, however, continued research was carried on, and it was further stimulated by the discovery and development of the microscope and the application of other natural sciences to medicine. But still the methods were wrong. Of systems of medicine, like text-books with us, there were many, but no systematic research. Pathology and therapeutics were tossed about by these systems because the basis of each system was not the knowledge of the causes and processes of disease, but the amount of success obtained by a particular form of treatment of disease. Practical medicine followed the systems proposed by the great masters, and, as Professor Samuel says, "it was indeed fortunate when such system perchance required but little blood, or sought to attain its curative results with an approximately reasonable quantity of emetics or a fairly moderate number of clusters."

But the anatomy of disease was still neglected, and thus no progress could be made. Halfway through the eighteenth century, however, Morgagni laid the foundation of morbid anatomy, and John Hunter that of experimental pathology, and this led to more systematic research into the processes of disease and thus to more exact generalisations. Indeed before the end of the eighteenth century had passed away, Bichat of Paris had already shown that similar tissues when diseased show similar morbid changes. Such knowledge could only be gained by systematic research and by objective methods of investigation. The latter were soon carried into clinical diagnosis, which until then, so far as lesions were not obvious and on the surface, was purely subjective. The introduction of percussion in 1807, and of auscultation in 1818, led the physician to apply physical and chemical methods to the diagnosis of disease, and from this time we may date the struggle of medicine to become an exact science, that is, to become as objective as possible. Clinical thermometry was introduced soon after, but how slow the progress and how hard the struggle for exactitude was will be understood when I tell you that the very physician who first applied the thermometer in clinical diagnosis himself believed in witches and witchcraft.

Medicine, in spite of all difficulties, now gradually became experimental; attempts were made to grasp as well as to regulate the action of the human machine. Chemistry and physics were eagerly applied, new laws and functions were discovered, and a healthy scepticism appeared. Since then active work has continued, and in our times empiricism pure and simple is discredited. The lesson we learn from this short review is that it was not a single happy discovery or a chance impulse which has raised medicine to its present level, but systematic research and labour. It is this which has made our progress during the nineteenth century so phenomenal. This century, and especially the latter half, has indeed achieved more than all previous centuries together.

It was fortunate that homeopathy, mesmerism, spiritualism, and hypnotism appeared at a time when the methods of medicine had become more scientific and objective. The new medicine, young though she was, resisted their onslaught; her foundations were shaken and required vigorous defence, but the progress of medicine as a science fortunately was not even delayed by them; in fact, homeopathy, which has never been the slightest use to any individual, became useful to mankind in that it contributed to the recognition of the expectant method of treatment, i. e. the Art of Doing Nothing, which, according to a great physician at this hospital, no longer in our midst, Dr. Matthews Duncan, is the most difficult task in medicine. The mystery of the "infinitesimal," and not the proposition *similia similibus*, gave homeopathy a start. Mysticism is always a danger, and as my honoured master Virchow has said: "The tendency towards mysticism is so deeply rooted in human nature that there is hardly a time when it does not come to light. Then even educated persons sink into a state of thoughtless and illogical incapacity of such dimensions as one would suppose to find only in savages." Science, however, will conquer; she is too powerful, and this century has recognised that progress is possible only if we follow the known laws of Nature instead of hoping to obtain privileged manifestations of the supernatural.

At the end of this century, after long labours, we have by no means reached the coveted goal, i. e. the establishment of medicine as an exact biological science, but we find ourselves in the midst of an ever-growing number of industrious workers, and in the possession of new methods and increased facilities for investigation. And if we ask ourselves what has caused this rapid progress of medicine, the answer must be the systematic study of pathology in all its parts, including the anatomy, physiology, biology, physics, and chemistry of disease. At the beginning of this century England, thanks to the

efforts of John Hunter, and thanks to the existence of large hospitals, had made great strides in pathology and occupied the leading position in medicine. The rise of pathology in Paris under Bichat and his pupils soon made the Paris medical school the first in the world, but the reputation of English medicine at that time was so high that Virchow, commenting on Paris, writes, "The French school enjoyed such a good name that even Englishmen went there to be taught." Would Virchow use this little word now? I can assure you that he could not. Until 1830 it was considered a special advantage to study in Paris.

Paris was displaced by Vienna through the efforts of Rokitsky, the Professor of Pathology, whose teachings were regarded the true foundation of practical medicine. It was then that Virchow appeared and preached the gospel of cellular pathology. Medicine at last became a true natural science. Systems and schools were banished, observation and experiment ruled supreme, and the *ipse dixit* of established authorities was no longer blindly accepted. Now Germany took the lead in medicine, and she has kept it, because she has recognised that practical medicine cannot succeed without systematic research in pathology; for, as Virchow says, "the same substance which carries life also carries disease," and "therefore it behoves us to investigate the seat of disease and the organs attacked by the disease, not only with knife in hand, but also by means of experiment and clinical research." In Germany this is so well recognised that every German medical school has its pathological and bacteriological laboratory, and almost every clinical institution its research laboratory. By the aid of such laboratories Germany has secured since the middle of this century the palm for scientific education and discovery. A laboratory is not, however, a place merely for the purpose of teaching students to pass examinations; its main purpose should be to do research, and by doing it to encourage and teach them to pursue research.

Let it be well understood that the history of practical medicine teaches us that without systematic research the technical practice of medicine—that is, "clinical medicine"—cannot progress; and let us honestly ask ourselves whether we in England have fully recognised the importance of systematic research. The answer must be an emphatic No! Being governed by the tyranny of examinations and curricula, we teach the students by syllabus and schedule as much anatomy and physiology as we can; we hurry them into the wards and neglect pathology and pharmacology, *i. e.* the causes and processes of disease, and the principles—not the traditions—of treatment. They are not encouraged to employ every possible objective method of diagnosis, but are led to believe in the mysterious power of clinical experience. As I have said before, Paracelsus is not yet dead. He snatches incomplete researches out of the laboratories, and applies them in the treatment of diseases, the pathology of which he does not understand. And his influence makes itself felt in the laboratories, to the discredit of medicine. Look at the number of organic extracts which are even now being used to allay vague symptoms. Yet, if we except the juice or extract of the thyroid gland for cachexia strumipriva, what actual and experimental evidence is there to justify this new fashion? It is to our credit that in this country we have been moderate in the use of these tissue extracts, which remind us of the elixirs of Paracelsus, to restore to man the health and soundness he has lost.

I wish to make a strong plea for the scientific investigation of disease in the wards, for clinical pathology, which is the application of chemistry, physics, histology, physiology, and pathology to diagnosis, prognosis, and methods of treatment. The questioning voice, the listening ear, the percussing and palpating hand, and the memory of fifty years' practice are not enough. Every symptom, every hidden change which can be demonstrated wholly or in part must be presented objectively, even if it be almost obvious. Phthisis may be written on a haggard face with burning signs as ominous as the writing on the wall; nevertheless the sputum should be examined, not merely to demonstrate the tubercle bacillus, but also other organisms and elements, so that we may learn and record what is taking place in the lungs. Just as the student is taught to use the stethoscope and to percuss, even where the diagnosis can be made without these aids, so also he should be taught always and at all times to examine everything that can be examined by methods carefully elaborated and simplified in the laboratory. Pathology is not a subject of secondary importance, inferior to practical medicine or surgery; it is the foundation of diagnosis, treatment, and prognosis. Why has this not been recognised in England? It certainly has not been recognised. I can speak with some authority upon this subject, for although only a young man with limited experience, since I was associated with this foundation I have strained every nerve to preach clinical pathology to men younger than

myself. This hospital, I am proud to say, thanks to its enlightened physicians and surgeons, has recognised the importance of clinical pathology more clearly than other hospitals. But neither here nor elsewhere is clinical pathology practised as it ought to be practised—that is, all day long.

Yet if you know your methods, and know how to interpret your results, you will often be able to make a diagnosis or to cast a prognosis with a conviction more certain than that of years of experience. The interpretation of the results and their limitation, those matters are arrived at by years of systematic work in the laboratories. Some of you, I regret to say not all, are familiar with the methods and importance of blood examination. No case of anemia should ever pass into your hands without a complete hematological investigation being made. You may say, "Why? We can diagnose anemia, at least many of its forms, without it, and our predecessors never troubled about such things." Quite so; but you know more about the case when you have examined the blood, and you may find once in a way that you have made a mistake, or you may be able to gain decisive information regarding the prognosis. And it is your bounden duty in dealing with a case to learn whatever can be learnt, for the sake of your patient, for your own sake, and for the sake of medicine as a science. You use the stethoscope, laryngoscope, ophthalmoscope, why not the microscope and the test-tube?

Times have changed. Practical medicine has been profoundly influenced by the unparalleled development of the medical sciences; scientific methods must pass from the laboratory to the hospital; cases must be studied with the aid of physical and chemical, microscopical and bacteriological methods. "Whereby the diagnosis of disease can be greatly advanced in precision. Medicine is no longer an empirical art, it is a science,—not exact yet, by any means, but we must do all that is in our power to make it so. I am not merely preaching a gospel of idealism, where virtue is its own reward. It is not human nature to follow an ideal unless there is a material reason for doing so. But he who knows his clinical pathology is better equipped than his neighbour who only possesses a stethoscope, which probably is often deaf, or marmos like an empty shell. A thorough knowledge of clinical pathology considerably shortens the period of experience which is required to make you into good physicians or diagnosticians, for, as Boerhaave justly said, "*qui bene diagnosticit, bene medebitur.*"

My grievance is that in this country the importance of research in the wards has not been as fully appreciated as it has been in Germany, for instance, and in America. Those of you who know me well must remember that I always speak with admiration of the Johns Hopkins Hospital in Baltimore. There in every case systematic legitimate research is carried on in the wards, whether this be chemical, bacteriological, histological, or physical; similarly systematic research is carried on in the deadhouse. There also every case is examined as thoroughly as it can be. And what is the result? The Johns Hopkins is one of the best hospitals in the world, and it is turning out a set of men of considerable ability, of a higher average than we can attain here with less perfect methods. It therefore fulfils the highest object of an educational establishment, that is to turn out good men, keeping its best alumni for its own welfare. Medicine is a science, and therefore it must be handled as a science. I do not mean that distressing and senseless experiments should be made on the patients, but a student should do more than copy the house physician's notes or ask the nurse how the patient has slept. Instead of casting a disgusted look into the sputum pot, he should investigate its nauseous contents. Instead of taking things up to the pathological department, the house physicians and house surgeons, with their clerks and dressers, should know how to do the investigations themselves. In the words of the famous Moravian, Amos Comenius, "they must learn and investigate the things themselves, and not merely the observations and testimonies of other persons concerning the things."

It may be objected that to work in this manner would require a large staff of men, an increased number of laboratories, and an increased expenditure. No doubt it would, and that is what I should like to see. There should be clinical laboratories, and a laboratory in connection with the post-mortem room. Professor Welch, of the Johns Hopkins, in an address delivered some two years ago, said, "At the present day no country, no university, no medical school can hold even a respectable place in the march of education and progress unless it is provided with suitable laboratories for scientific work." I should have thought that this must be obvious to every body. But what is most required is a revolution in our teaching and examinations. The latter, unfortunately, govern everything, and tend to hinder progress. I am not, however, here to discuss examinations, or even to suggest the means by which my ideal can

be reached. What I wished to do was to represent to you, in however an imperfect manner, that medicine is passing from an empirical system—I cannot call that an art—to a science. We have recognised its true scientific basis; and its practice, like that of any technical industry based upon science, can only be followed and developed by strict attention to systematic research, not with the view of hitting upon a lucky discovery, but for the purpose of learning the methods and of collecting facts. Once more to quote Virchow, "Whatever can be observed, it is our duty to observe well and to retain faithfully. That is the method which the latter half of this century has entrusted to us." Medicine, and especially pathology, its foundation, is a biological science; this is a conviction which we have to carry into the next century, for thus only can practical medicine advance. Pathetically the veteran sums up the labours of fifty years in these words: "The consciousness that this conviction will survive me is the solace of my old age." Why should we lag behind, forgetting that a hundred years ago we were the pioneers, and not the stragglers? In medicine art can never be separated from science. Medical art can never be more or less than a science working with technical appliances; it is not independent, but simply follows out the indications of science. This being so, I cannot do better than conclude with the words of Bako, Harvey's contemporary, *Nam et ipsa scientia potentia est.*

On the Evidences of an Early Tubal Gestation before and after Rupture of the Sac.

A Paper read before the Abernethian Society, Feb. 3rd, 1898.

by W. GLADSTONE CLARK, F.R.C.S.

(Continued from page 149.)

WE may now leave the biographical side of the diagnosis and turn to the facts as they may present themselves to the observer; and these may be considered under three heads as they point to a pregnancy, to a pelvic disease, or to a general affection of the patient.

The diagnosis of pregnancy must always be difficult, and there is unfortunately little to add to what we have already noticed under the heading of amenorrhoea. Next in importance comes the state of the breasts, where the most that can be expected is a little mucoid secretion; and this, though frequent, may be of doubtful significance. I would remind you that we are only taking account of the early cases from the time of conception up to and including the crisis produced by primary or secondary rupture of the sac, for in the late cases there can hardly be any real doubt as to the existence of pregnancy; the difficulty then is to prove that the pregnancy is extra-uterine. It is also unusual to find marked changes in the coloration of the vulva and cervix, but a slight softening of the cervix in the neighbourhood of the external os is not uncommon, and when present is extremely useful. The uterus is always slightly enlarged, but this is at first always within the limits of bulk of the unimpregnated uterus, and even later it is difficult to make a positive estimate of size in the absence of the use of the sound, which must be regarded as contra-indicated by the history of amenorrhoea.

The evidence of pelvic disease is very slight before rupture of the sac. In the early weeks, should an examination be called for, the physician may feel the distended tube in one or other posterior quarter of the pelvis, as a small, rounded, moveable body, which hardly admits of differentiation from other morbid conditions of the appendages, or in many cases from the normal appendages themselves. In other cases no such swelling can be felt. Thus a woman with a doubtful history was examined in the out-patient department, and nothing abnormal discovered. The next day she had an attack of faintness and pain. She remained in bed, and when next examined, after the lapse of a fortnight, was found to be suffering from a large hæmatocele, which afterwards became absorbed. Should the rupture be long delayed, an enlargement of the tube up to the size of an orange, or even larger, may be made out, which, with the presence of other signs and symptoms, may justify an exploratory operation on the probability of its serious origin. I think that few, if any, English diagnosticians would care to advance a more decided opinion.

Immediately after rupture the pelvic examination gives an entirely negative result, but if the hæmorrhage be severe, signs of free fluid rapidly become recognisable. In a greater number of instances nothing can be made out for twenty-four to forty-eight hours, when the clotting of the effused blood renders palpation of the hæmatocele possible. This varies greatly in size, in some cases being confined to the true pelvis, in many others extending as high as the umbilicus. That part of the swelling in the pelvis may be felt either behind the uterus or occupying a more lateral situation. If it occupy the position of a parametritis it may be supposed that it will become evident to palpation sooner than if in the free peritoneal cavity; but, on the other hand, hæmorrhage into the broad ligament tends to be less rapid in its course. If we have to determine from palpation that the swelling under our observation is blood, we have a very difficult task before us. The chief points about the sensations received from a hæmatocele are—firstly, its lack of exact boundaries, which helps to exclude an actual tumour, such as an ovarian tumour or distended tube, but which helps to include those cases of peritonitis which are accompanied by a swelling of considerable thickness. In both of these a rectal examination may reveal the fact that the swelling is limited by the lower boundaries of the peritoneum. As a part of the same lack of definition, the outline of the displaced uterus is usually undeterminable. The second feature is its varying consistency, in parts giving the sensation of fluid, in others, perhaps, of a firm solid, or else an intermediate resistance, most often described as "doughy." That a hæmatocele does in many cases present a peculiar resistance of its own can hardly be denied, but it is equally beyond doubt that the perception of this quality can only be acquired as the result of a very long apprenticeship.

This brings us to the third group of signs—the signs of a general affection of the patient, the signs of a serious loss of blood. These, though of the highest importance in this condition and in certain surgical and medical conditions, such as bleeding into the peritoneum as a result of injury, or into the alimentary canal as a result of ulceration, and presenting a sufficiently striking clinical picture, are to my mind too little brought before the student and—I say it with a certain trepidation—before the qualified practitioner. Is it too much to ask you to believe that a severe and almost fatal hæmorrhage into the abdomen has been diagnosed as colic? or that such a condition may frequently be attributed to inflammation (meaning peri- or parametritis)? or that in the case of the girl of nineteen, to whom I have already referred, and who died in a few hours from the hæmorrhage of a ruptured tubal gestation, the symptoms were attributed to hysteria? I think that a great number of these mistakes may be attributed to the habitual attitude of mind of the individual, and that most men are a great deal more dependent on the actual sight of blood for the diagnosis of serious hæmorrhage than they are aware, or else upon a knowledge of the course of any particular disease, or of the probable results of an injury. Such an unconscious train of reasoning would undoubtedly explain the readiness with which hæmorrhage from an unaccustomed source may be overlooked even by the safest and most conscientious in his own department. That the constitutional signs of moderately severe hæmorrhage do form a recognisable group of symptoms is tacitly admitted, but it is largely left to gynaecological specialists to make any practical use of them. The danger of hæmorrhage in parturition makes the accoucheur constantly on the look-out, and gives him a facility in diagnosis which should be aimed at by all.

What, then, are the signs of a severe hæmorrhage? To a large extent they are the signs of shock. Thus we meet with cold, clammy extremities, a feeble rapid pulse, sighing respiration, an anxious expression, and general pallor; and it is therefore for us to determine by which of these signs we may distinguish the prostration of a severe hæmorrhage from that due to shock, particularly peritoneal shock, where many of the symptoms are due to a local, that is to say a cerebral anæmia. Clearly a paleness of the skin is a salient feature, and I would advocate that this paleness (best evidenced by the mucous membranes) is produced by the removal of a quantity of blood without otherwise interfering with the circulation, so that what colour remains is pink, which forms a considerable contrast to the colour of the face in the collapse of peritonitis or choleraic diarrhoea, or other serious diseases where the hue is variously described as earthy, leaden, or ashy—a result produced by emptiness of the cutaneous vessels, to which is added an abnormal venosity of the blood due to failure of the circulation, and a more definite falling in of the features.

Regarded from another point of view, the anæmia of a patient suffering from hæmorrhage is a loss of colour, which is great in proportion to the severity of the other symptoms. Similarly the

other sign of diagnostic importance is the rapidity of the pulse in proportion to the degree of collapse, a comparison which should as surely be made as the ratio of the pulse rate to the respiratory rate in diseases of the chest. Thus, omitting the moribund state, we may expect in a well-marked case of peritonitis, general or local, a pulse of 120; whereas in a ruptured tube (where there is of necessity some abdominal disturbance), with moderate hemorrhage, the pulse rate would be about 120 also; and if the loss of blood were large, would reach 130, 140, or even more—a rapidity far less seriousness in hemorrhage than in many diseases. How these two signs may fail to attract attention has been already pointed out. How they may be misinterpreted depends on the fact that hemorrhage is inevitably consequent upon some other morbid condition, which may be easily accredited with being the sole cause of the trouble. So in typhoid the recognition of hemorrhage into the bowel is obscured by the fever; so in a run-over the hemorrhage from a ruptured kidney may simulate an inevitably fatal abdominal injury; so in a tubal gestation the abdominal condition may suggest a hundred and one possibilities but the right one.

The last case is further complicated by the fact that the certain presence of internal hemorrhage is in most cases the final, and in many cases the only viable, clue to the nature of the disease. If it is not yet evident to you that mistakes, and fatal mistakes, must be made from failure to recognise these signs of internal hemorrhage, I have only to refer you to the post-mortem records of this or any other general hospital where difficult cases are for the most part more subject to discussion, and therefore to accurate diagnosis, than they are in private practice. Let me illustrate this unsatisfactory state of things by an instance where the less usual converse mistake was made, namely, of suspecting a severe internal hemorrhage where none existed. A woman, over thirty, had borne two children, and thought she was at the end of the fifth month of a third pregnancy. She felt perfectly well till a week before she consulted her doctor, when she began to have severe abdominal pain and vomiting, and for the last three days of the week her abdomen became rapidly more distended. When seen she was very ill and much collapsed; pulse 130, with incessant vomiting. There was no constipation. Pregnancy was rightly diagnosed, but the swelling was wrongly supposed to be an enormous effusion of blood. It is to be noticed that in this case the peritonitis was readily explained by the vomiting, also that the anæmia ratio was not extreme, and the patient's complexion ashy rather than blanched; so that from the constitutional signs alone a severe hemorrhage was not in any degree probable. Of course the swelling, from its very size, could not have been a simple hemorrhage. The patient proved to be suffering from acute hydrantrios with twins.

To recapitulate the above points in the method of application, we see that the history is to be used to decide as to the necessity of an examination, and in the absence of any positive contra-indication of an extra-uterine pregnancy, to be thoroughly investigated from that point of view. To expect the history and symptoms to suggest a tubal pregnancy without subjecting them to analysis is but to court disaster. Begin by being suspicious, and continue so until the firm establishment of another diagnosis.

Unfortunately the pelvic examination can only be approached from the like suppositional standpoint, and unless it gives undoubted proof of the absence of pregnancy, or of the existence of an intra-uterine pregnancy, is likely to leave us still uncertain. A repeated pelvic examination is of greater service in detecting an increasing movable swelling in one or other posterior quarter before rupture, or else a fixed swelling altering in size and character, as does an effusion of blood.

In order to make a positive diagnosis we must have in the first place a certain pregnancy, together with some signs of its being outside the uterus. Of these I would advocate three, the first and most reliable being the evidence of internal hemorrhage; the second the passage of a membrane containing decidual cells; the third the enlargement of the empty uterus, as evidenced by the sound. Any one of these is sufficient evidence of the existence of pregnancy, also of its abnormal situation. Of the difficulties in recognising the hemorrhage I have already spoken. The fallacies of the decidual cast are the possibilities of mistaking it for an early abortion or for a dysmenorrhœal membrane, but I do not think that in the presence of other signs of disease either of these is a very real difficulty. The fallacies introduced by the use of the sound are either not passing it the whole length of the enlarged uterus, or when it is passed further than normal in thinking the uterus has always been empty, whereas its enlargement may be due to a recent abortion or to the presence of an intra-uterine ovum. Hence we may avoid placing undue reliance on the length of the uterine cavity if we only use the

sound where the condition of the patient demands a diagnosis, and then only after a consultation, which must remain an invariable rule, having regard to the possibility of disturbing a normal pregnancy. There are many cases where an anæsthetic enhances the value of an examination.

This review would hardly be complete without a discussion of the rational treatment of an extra-uterine pregnancy, but time forbids that I should do more than touch on what I believe to be the principles of such treatment. I have endeavoured to show that Nature possesses and in many cases exercises successfully her own remedies for this condition in the arrest of hemorrhage and the death of the ovum. We have, therefore, to determine the cases in which operative interference is the proper course. Of these the earliest is without doubt one in which the probable diagnosis is made before rupture. Here the risk of laparotomy is reduced to its minimum, and frees the patient from the serious danger attendant on hemorrhage into the peritoneum. The mortality in such cases should be very small, 5 per cent. as an outside limit, and in spite of a proportion of unnecessary explorations, the total mortality of the disease would be reduced to the above figure could abdominal section be resorted to in every case before rupture. The second in point of time is the moment of rupture, the time of greatest danger to the patient, when it is impossible to estimate the probable amount of the hemorrhage. Many cases at this stage go downhill so rapidly that an operation becomes hourly more imperative, and at the same time more grave. A number of these patients, perhaps a majority, would be saved by immediate operation, and among those who would have recovered by Nature's self, few, if any, would be lost by operation. It is often pointed out that the additional amount of collapse at the time of rupture adds to the risk of an immediate laparotomy, a collapse which may be partially recovered from in a few hours; but I do not think that in these latter cases the collapse is so serious as it appears to be, while it is clear that if the patient is not going to rally after the primary shock her life will be sacrificed by any delay. Hence rapidity or feebleness of the pulse, even when extreme, becomes an indication for immediate operation, and not for delay.

When the patient is first seen a few hours after the shock, much depends on the skill and experience of the physician who is called upon to decide whether there is active hemorrhage or not. If the patient be still losing blood, probably her best chance lies in immediate interference, whereas an unnecessary laparotomy exposes her to the very gravest danger. Not a few patients, despising the wisdom of the profession, have recovered from a desperate condition without operation, even when a considerable amount of blood has collected in the flanks of the abdomen. It is only natural for us to suppose that more patients have lost their lives by refusing to be operated upon. The former error is more likely to be forgotten by the physician, and the latter to have undue weight, while the laity treasure in their hearts the mistakes of the savant, leaving a pleasing epitaph alone to record the fate of the foolhardy. To advise an operation in this case is a great responsibility, but on the whole seems to be the safer course if, after duly debating the circumstances, the physician still remains in doubt.

When the patient is seen after recovering from the faint, or after the formation of a hæmatocœle, is the third possibility, and here I would concur with those who adopt a waiting policy. Do not operate, but be prepared to operate. The indications for operation are continued hemorrhage as evidenced by increase in size of the hæmatocœle or by persisting pain, and later still the continuance of pregnancy. Of twelve consecutive cases seen after rupture one died without operation in a few hours, three after operation, two recovered after operation, and six recovered without operation. The number is too small to make a statistical table, but sufficiently large to support the waiting policy. The proportion of deaths in the operation cases naturally is much higher than if all cases had been submitted to the knife.

As to the details of the operation it is not for me to speak authoritatively, but I believe the results will improve in proportion as the surgeon errs on the side of doing too little, particularly in hesitating to irrigate and sponge the general peritoneal cavity, and in looking not to mechanical devices to remove the blood and protect the patient from septic inflammation, but to the still too much despised living cell. In the two complete operation cases of which I have notes there was found at the autopsy general plastic peritonitis, a condition which I believe is easily produced by mechanically irritating the peritoneum of these very anæmic subjects, and in them as fatal as the septic variety.

The Life and Works of Sir Charles Bell.

Being the Wix Prize Essay for 1898.

By W. E. LL. DAVIES.

(Continued from page 153.)

BELL recounts in one of his letters a discussion which he had with Lord Cockburn as to whether a man should confine himself to the acquisition of a fortune, or should endeavour to accomplish something for the benefit of science. Cockburn scoffed at the idea of sacrificing guineas to an abstraction. He tried to persuade Bell "that it was quite as respectable to fill your station well without making any exertions to improve science, to make discoveries, or fill the chasms of knowledge." Probably Cockburn knew that if Bell courted science and neglected fees he would lose a fortune, even if he gained fame. The history of this great discovery of his points to the truth of Cockburn's remark. It was present to his mind not much later than 1807. He evidently thought that everybody in the profession was as enthusiastic as himself. Had he been wise he would have waited till his views were fully matured, and then have blown such a blast on his own trumpet as would have resounded throughout Europe. What he did was very much the reverse of this. He printed in 1811 for private circulation his *Idea of a New Anatomy of the Brain*—for the observation of his friends. These friends do not seem to have made any observations at all. This seems to have disheartened him, for little more was heard of it till he proclaimed it to the Royal Society in 1821. He woke next morning and, like Byron, found himself famous, and his fame grew higher on the Continent even than in this country. When he visited Paris, Roux dismissed his class after Charles Bell had been introduced with the words "C'est assez, messieurs; vous avez vu Charles Bell." Cuvier, Tiedeman, and Scarpa regarded him with honour; and in the Continental schools he was classed as everybody now classes him, as not inferior to Harvey. But others, envious of him no doubt, tried to rob him of his rightful honour. Majendie claimed to have first shown this experimentally in 1821; but he is refuted by the printed record of Bell's experiment in 1811, as is admitted by Bédard in his most recent account of the controversy (*Journal de Physiologie*, Paris, 1884, p. 405). Apart from this, Majendie was acquainted with all Bell's previous publications; he also witnessed at his own request some of John Shaw's experiments in Paris on the fifth and seventh nerves, and received from the latter a full explanation of the opinion entertained by Bell and himself. He also received plates illustrating these opinions, and showing the differences between the two great classes of nerves.

The controversy on the subject of prior discovery lasted a long time, but time and universal opinion have now settled it, and Charles Bell's claim is acknowledged by all.

Shortly after the publication of his great work in 1830, he was again thrown into the society of Brougham, with whom in later years he had not had much in common. This association led him to publish his volume on *Animal Mechanics* for the Library of Useful Knowledge, one of the ablest popular treatises which was ever composed on a scientific subject. He had delivered the substance of the book in his lectures as Professor of Anatomy to the College of Surgeons, but the work in itself was a wonderful triumph of clear exposition on a subject which none but a master could have handled, and which even a master might have failed to render intelligible and attractive to the ordinary reader. In 1831 he was selected to write one of the 'Bridgewater Treatises,' and thus produced his work on 'The Hand,' for which he received a thousand guineas. The latter treatise, and his illustrations of *Paley's Natural Theology*, written in conjunction with Lord Brougham, were offshoots of the train of ideas contained in the treatise on *Animal Mechanics*. Bell simply wrote the notes and appendix of *Paley's Natural Theology*. They relate chiefly to anatomy and physiology. They are composed in the most simple language, so that any reader could become thoroughly conversant with the subject. The book treats of the evidence of design in nature. Bell, illustrating this, gives an account of the antlers of the deer, which they fall off in that part of the year when not required for protection. He also refers to the discovery made by Purkinje and Valentine respecting "ciliary motion." Bell seems to have had many misgivings about undertaking the "Paley." In March, 1835, he writes, "Having written the *Animal Mechanics* and the *Bridgewater*, I feel I have done enough on that subject for the present; if I could gain a little leisure, or were I so ill as to be

excused from business, I know no occupation that would be more delightful, but with the pressure of business and anxieties of another kind I fear I can do no justice to such a subject. A man should feel deeply and be pleased with everything around him before he can possess himself of that tone of mind necessary to such an undertaking. If there be any 'best bits' in the essay on the hand they were written after a day of complete retirement and relaxation at Fanshanger and Chenies. I have tasked myself pleasantly, while throwing a line, how I should express my thoughts on returning to the inn. It is then that one has the justest and fairest views of nature."

It was on reasons so grounded that Bell defended his passion for fishing, into the practice of which gentle craft he was seduced by his early friend, John Richardson of Pludver Street. At first he was a most awkward handler of the rod, but by diligent practice in his "drawing room" of an evening he acquired those incommensurable delicacies in the motion of the wrist by which the fly is so floated as to become an irresistible temptation to the fish. His carriage, when he made a tour with his wife, was carefully packed with all the appliances of his sport, a few chosen volumes, and the unfulfilling sketch-book. In the heat of the sun a neighbouring tree gave him shade to sketch the surrounding scenery, until a passing cloud enabled him once more to ply the rod with some success. This sport, so conducted, he called his "country house," and looked on it as the cause of his health, as it surely was of no little of his happiness. Bell was induced about this time (1835) to accept the chair of Physiology in the London University, with, as he states, a *carte blanche* as to the teaching of Anatomy. But a host of lecturers under various denominations were appointed by the Council, composed of gentlemen little conversant with the wants of medical instruction, and the result was, in the words of Bell, "That five gentlemen were engaged in teaching human anatomy; and that three certainly were lecturing in the same class-room, on the same subjects, and with the same preparations put on the table three successive times in the same day."

As a natural consequence to Bell's exalted notions of a teacher, within a few days after the first opening of the University he tendered his resignation, and a short time afterwards, from a variety of petty circumstances, he withdrew altogether. He was now without any means of support but his practice, and that he disliked; all his objects of ambition, his plans for ameliorating his profession, were at an end.

In 1831 he received on the accession of William IV, together with Leslie, Herschell, and Ivory, the Guelphic Order of knighthood, an honour not too great even for those merits which were then undisputed, and very inadequate for his real services to science and the world. Charles Bell was, however, as much gratified by his association with Herschell and the others as by the distinction itself, as he says in his diary, "The hatch makes it respectable." Strangers from all parts of the world consulted him, and offered him large fees for a few visits; and had he chosen to remain in London, and mastered his ruling passion for scientific research, he most certainly might have thrown aside his wants and his anxieties; but that passion was his life, and only with life did it perish.

In November, 1835, Bell was offered and accepted the chair of Surgery at the University of Edinburgh. It is not surprising that Bell should have been induced to accept it. Though he had realised most of his early ambitions and dreams, yet he was a poor man, and it can hardly be wondered at that nothing in London could compensate for visions of academic leisure and honours, joined to the society of Jeffrey, Cockburn, Cranston, William Clerk, and Adam Ferguson, and the daily solace of the one brother left.

Before quitting London the highest names of his profession tendered a mark of their respect and regard by the presentation of a piece of plate—a gift which, proceeding from such men, was most grateful to him; and at the annual dinner of the College of Surgeons, when Sir Astley Cooper presided, he may be said to have taken leave of his associates amidst overwhelming signs of their respectful affection and regret.

His return to Edinburgh in 1836, after an absence of thirty-two years, awakened many emotions, and he writes, "Every remarkable object, every street and corner, brought to my recollection some circumstances important to life, and I seemed to walk in a city of tombs." His old friends received Charles Bell with open arms and profuse hospitality. He was kindly welcomed at the University, and began his new duties with energy. His opening lecture was attended by a large and brilliant extra-academic audience; and, as usual, he soon exhibited his power of exciting and fixing his class. But thirty-two years had changed Edinburgh more than appeared at first sight. Ere long he began to find the experiment was a failure; within three

years of his arrival various circumstances had straitened his means; neither his class nor his practice yielded an income such as might be expected from his talents. By-and-by it was evident that the subject of medical reform and the vague notions connected with it had affected still more the University of Edinburgh. The measure about to be brought into Parliament and the rumours afloat caused Bell great uneasiness. In one of his letters to Dr. Ferguson he writes:

"I require your sympathy, and perhaps your assistance, at all events your advice. You know my motive in coming to Scotland. Old Windmill Street, for which I had paid my last penny, and which I had brought up to some consideration by twenty years' incessant labour, was destroyed by the establishment of the London University! The treatment of the governors or subscribers, which disgusted me, I need not recall. My hospital, which at the time you knew me enabled me to divide with my colleagues £1200, was lost by the withdrawing of the pupils to a new pretence of an hospital. From these circumstances you cannot be surprised that I accepted the invitation to come here. But now observe what a succession of petty annoyances I had during my whole life desired a college life. I thought I had here obtained a situation where I could constantly pursue science, and meditated a splendid work on the nervous system. I soon found that I was deceived. The magistrates are our patrons—men a hundred degrees less calculated to have to do with science or literature than the subscribers to the new Universities. Much as these worthies have done to injure the University of Edinburgh, the *coup de pied* comes from your friends. This intended bill of Sir James Graham is total destruction to the University as a school of medicine. As I understand, degrees in London are to be given by a deputation from the College of Physicians and College of Surgeons, and the same measure is to extend to Edinburgh. Now heaven and earth! the College of Physicians here is nobody; and the College of Surgeons are family apothecaries. If to such men you entrust the duty of granting degrees, where then are the Universities? Their honour, credit, station, and emoluments are gone. My dear friend, what would you advise me to do? There are here six lecturers in surgery, all now to be put on a par; the distinction of professor is sunk, and a triumph of a pack of the most illiberal dogs that ever disgraced a profession complete. The more I do, the more I exert myself, the stronger the desire here to mortify me, and this is their grand occasion. As long as something like respect was attached to my labours I was content with less of income. I put down my carriage with as little feeling as I throw off my shoes. I could further reduce my expenses, but not consistently with a public situation."

While these anxieties were still hovering over him, he planned and executed a journey to Rome for the purpose of finishing the third edition of his *Anatomy of Expression*, and also for the benefit of his failing health. Since his return to Edinburgh he had published in 1838 *Institutes of Surgery*, and in 1841 some *Practical Essays*. "These, like all his works, are worth reading as the productions of close observation and considerable experience; but they are not of the same consequence as his physiological writings. The time he spent in the wards and at the bedside of patients was not lost to science, for observations there made helped him on his great discoveries, but as an operating and consulting surgeon he does not stand higher than his contemporaries."

His journey through France and Italy was marked by attentions which few have received. At Lyons, Marseilles, Genoa, and Bologna the chief physicians waited on him, and made arrangements for receiving him at the hospitals, where the pupils were assembled to see him. At Rome the Italian doctors and artists, English and native, devoted themselves to show him attention.

But the energies of his active mind, the ambitions and cares of life, were soon now to be brought to a close. A little more than a year later he was, as he says in a letter, "chained in activity" by terrible attacks of angina pectoris, and in one of these he died on the morning of 28th April, 1842. He was staying at Hallow Park, near Worcester, and was buried in the churchyard of the parish. In Hallow Church there is a tablet to his memory, with an English inscription by Lord Jeffrey.

Thus lived and died Charles Bell, a man who largely influenced the progress of medical science, and those who are capable of being modelled by a great example. He began his career without friends or fortune, and quitted it without a debt. Among his own family few were more beloved. "Whatever might have been his fastidiousness as to practice among the rich, he never neglected the poor." It is impossible to read his letters without perceiving the lofty notions he entertained of his talents and destinies. If ever there was a being possessed with a principle of action which compelled him to advance

in an appointed path, that individual was Bell. He nurtured in his mind an ideal of what a man of science in the walk of medicine should be, and to that model he would fain have made all others bend, as he had himself done. He would accept no honours save those flowing from previous acknowledgment of his deserts, and did not hesitate to decline being associated in public capacities with men whose ambition he could not regard with respect. He was simple, outspoken, unworldly, and it followed that many worldly spirits never comprehended or perhaps liked him; but it equally followed that he was regarded with affectionate reverence by all capable of sympathising with a pure and noble mind. His industry was incessant, and few in any profession have proved it by a greater number of important publications. "The style of his scientific papers is sometimes involved, nor are happy turns of expression frequent in his popular works. His letters are his best compositions."

Bell began life with the highest aspirations, but long before its close he had been chastened into its real worth, and man and nature had each in their several ways taught him that lesson of humility which his own words must convey. "Whoever has sat on a sunny stone in the midst of a stream and played with the osier twigs and running waters must, if he have a soul, remember that day should he live a hundred years; and to return to such a spot after twenty years of a struggling life in the great world of man's invention—to come back thus to Nature in her simple guise, again to look up the same dark hill, again to the same trees, still in their youth and freshness, the same clear running waters, if he can do this, and think himself better than a cork floating on the stream, he has more conceit than I!"

It was a saying of Sir Astley Cooper's that nobody should devote himself to science unless he had a fortune ready made. The effects of acting on that maxim and of disregarding it can be seen in his case and in Bell's. Sir Charles Bell ended as poor as he began, but as spotless, leaving a widow only the memory of his gentle virtues and the immortality of his name.

Twin Labour; Birth of Common Placenta twenty minutes before Birth of Second Child; Survival of both Children.

Reported by T. W. BROWN at Dr. CHAMPNEYS' request.

ALLIED TO J. S.— primipara æt. 23, 1.25 p.m., June 11th. On arrival found patient with fairly regular labour pains. On abdominal examination R. O. A. position diagnosed, limbs felt on left side. Fetal heart heard on right side below umbilicus, rate 150. *Per vaginam*, os size of five-shilling piece, good presentation, vertex presenting. Gave enema and left patient.

At 8 p.m. found membranes had ruptured and secondary uterine inertia beginning, so gave some beef tea and Tinct. Opii νxx ; told patient to try and go to sleep. Looked in again 11 p.m.; patient had dozed slightly, after which pains became more frequent. *Per vaginam* found vertex presenting at vulva, and there it became arrested, as pains were slight. The vulva and perineum were very rigid; applied hot flannels, waited 1½ hours when pains came on, and by means of stretching vulva and perineum with fingers the child was born 12.15 a.m., June 12th; after five minutes the cord was tied. On further examination the uterus was found to be well above the umbilicus, and to contain a second child, which mother could feel moving. As soon as the cord was tied, a pain expelled the placenta. Between the birth of the first child and the placenta there was some bleeding, which stopped as soon as the placenta was out. Then noticed the placenta was very large, and on examining it found two cords coming from it. On making an examination to ascertain the presentation of the second child could feel the head, but no membranes, and as the waters had evidently all come away, waited for the pains, which came on and expelled the second child at 12.40, twenty minutes after the placenta. The second child was in a condition of white asphyxia, and showed no signs of breathing; artificial respiration was performed, which brought the child round. There was no bleeding after the birth of the second child.

The mother was much exhausted, very faint, and complained of headache; a pint of hot beef tea was given, and her head kept low. ʒj Ext. Ergotæ Liq. was also given, and a hot vaginal iodine douche,

all clots having been previously removed. Patient was not moved for one hour; a binder was then put on, and she was put to bed. The babies (girls) weighed 5 lbs. each; their eyes washed with Argent. Nit. Sol., grs. v ad ʒi. The placenta was intact, and weighed 24 lbs., cords 18 inches long; it contained one chorion and two amniotic cavities, which probably communicated, as all the liquor amnii was discharged with the first child. At 2 a.m., uterus being firmly contracted, the patient was left.

The mother made an uneventful recovery, and when visits were discontinued both the children were quite well.

Remarks.—It is, of course, well known that the fetus or newly born child can stand deprivation of air for a much more considerable time than older children. A case is recorded (*Lancet*, July 30th, p. 274) in which a newly born child was resuscitated after having been buried in an ash-pit for nine hours.

In this case it is clear that if the second child obtained any oxygen at all, it was through the medium of the exposed placenta; for the cord of the first child was tied, so that no anastomotic circulation was possible. The fact that it was born in a state of white asphyxia shows that the circulation must have come to a standstill. Dr. Champneys regards the case as one of suspended animation.

Notes.

GREAT sympathy will be felt by all Bart.'s men with Mr. Henry Power and Mr. D'Arcy Power in the bereavement which has recently befallen them. On Saturday, July 30th, Mr. Power was on the East Pier at Whitley with his daughter, Miss Lucy Power, and his grand-daughter, Miss Isabel Cooper. An unusually large wave broke over the pier and swept the two ladies into the sea, where they were drowned. Mr. Power nearly lost his life in a gallant attempt to save them; we are glad to add that although much bruised he is progressing rapidly towards recovery.

SURGEON-LIEUTENANT HUGO has been recommended for the Distinguished Service Order. We have already referred to his act of heroism, but cannot refrain from quoting the account given by Sir Walter Foster as recorded in the *British Medical Journal* for July 16th. "Lieutenant Ford, of the Malakand Field Force, was dangerously wounded in the shoulder, and was bleeding to death from the bullet having cut the main artery, when Surgeon-Lieutenant Hugo came to his aid. The fire was too hot to permit lights to be used to examine the wound, and there was no cover; nevertheless the surgeon struck a match, and examined the wound. The match went out amid a splutter of bullets which kicked up the dust all round, but by its uncertain light he saw the nature of the injury, and seized the bleeding artery, and as no ligature was available, he remained for three hours under fire holding the vessel between his finger and thumb. When, at length, it seemed that the enemy had broken into camp, he picked up the officer, who was unconscious from loss of blood, and bore him into a place of safety without relaxing his hold of the artery."

THE following additional appointments of Medical Referees have been made under the Workmen's Compensation Act, 1897:—Charles Stuart Pethick, M.R.C.S., L.R.C.P.,

Woolton, Liverpool; Frank Montague Pope, M.R.C.P., Leicester; Harry Gilbert Barling, F.R.C.S., Birmingham; John Lionel Stretton, M.R.C.S., Kidderminster; Walter Gifford Nash, F.R.C.S., Bedford; Edward Colby Sharpin, L.R.C.P.; Thomas George Styan, M.D., Ramsgate.

On the result of the combined examinations held at London and at Netley for "Surgeons on probation of the Indian Medical Service," the Montefiore Medal and Prize of 20 guineas for Surgery has been awarded to H. B. Meakin.

THE Home Secretary has appointed Mr. Thomas Morrison Legge, M.D., to the new post of Medical Inspector of Factories and Workshops.

THE honorary degree of LL.D. has been conferred upon Dr. Lauder Brunton by the University of Edinburgh.

THE *Middlesex Hospital Journal* has issued an excellent special number devoted to the History of the Hospital and School. It is adorned with many illustrations and two plans of the new school buildings now in course of erection.

THE prophecies made at the Amalgamated Clubs' dinner have proved correct. The Cricket Cup has come to Bart.'s, the final tie against University resulting in a win for us. We regret not being able to give fuller particulars, but the Cricket Club has apparently become very modest after this achievement, and has forborne to send any account to us of its victory.

We are glad to be able to announce that the inaugural address of the next Session of the Abernethian Society will be delivered on Thursday, October 6th, at 8 p.m., by Sir Thomas Smith, Bart., F.R.C.S. Sir Thomas has chosen for his subject reminiscences of his forty-eight years' association with the Hospital, and our readers will agree with us that an interesting evening may be expected.

We have been hearing lately of the pre-eminent position held by English schools of medicine early this century. Be that as it may, in those days students worked under disadvantages such as we have no conception of now. When Mr. Skey was a student he took the chair at a meeting of the pupils of the Hospital where the following significant resolutions addressed to the surgeons were unanimously adopted.

"1st, that for the benefit of the students and the economy of your time the name, age, disease, and treatment of each patient be posted on some conspicuous part of the bed.

"2ndly, that all accidents admitted be registered every day in a book kept for the purpose in each accident ward.

"3rdly, that a notice of all operations to be performed shall be posted on a board in the Anatomical Theatre."

The fact that such requisitions were necessary is evidence in itself of the state of clinical teaching. But a fourth resolution was also hotly discussed. Not only were the post-mortem examinations carried out without any regular notice being given, but a tax of sixpence was imposed on each student for entering the post-mortem room! After much discussion the resolution was drafted as follows:

"4thly, that you will please to cause due notice of every post-mortem examination to be given, and will also assist in correcting the present abuses of the deadhouse."

* * *

A medical paper of the day in commenting on these resolutions spitefully says, "We suspect some of the surgeons will be often at a loss to give the disease of all their patients a name. It is fortunate for the physicians of the hospital that the resolutions were not extended to them"! Further, the rules with reference to apprentices were animadverted on. "According to one rule of this hospital, a surgeon, whatever his abilities may be, is ineligible for the office of surgeon who has not served his apprenticeship to one of the surgeons of the institution; and for this advantage the most extravagant premiums have been and still are given. We have heard of a merchant giving one thousand pounds to the late Sir Charles Blিকে with his son as an outdoor apprentice." Truly *tempora mutantur*, for which we may be thankful.

Amalgamated Clubs.

CRICKET CLUB.

We have received no news of the Cricket Club this month.

SWIMMING CLUB.

INTER-HOSPITAL SWIMMING SHIELD.—SEMI-FINAL ROUND.

St. Bart's v. Guy's.—This was fixed for July 19th, and we had a fair team entered, but unfortunately two of them failed to put in an appearance at the baths, so after waiting for forty-five minutes we had to scratch the fixture. It is a great pity that such a thing should have occurred, as it gives the Hospital an extremely bad name amongst other hospitals, and as a large number of Guy's men turned up at the baths to see the racing, it must have been particularly annoying to them. We offer apologies for their absence, but it must be hard for Guy's to understand the indifference shown by two men who had been chosen to represent a hospital in a Cup Tie.

TWO LENGTHS TRUDGING HANDICAP.

Swum off at our headquarters, Northampton Institute, Clerkenwell. Eight men entered. Result: F. M. Niall ... 1 | A. H. Bloxsome ... 2

INTER-HOSPITAL WATER-POLO CUP.

The final of this competition took place on Tuesday afternoon, July 26th, at St. Saviour's Baths, Southwark. The result lay between St. Bart's and Guy's (holders). Both hospitals were well represented both in the water and the gallery. St. Bart's started by defending the "deep" goal first, and at once an extremely hard game commenced, which continued so right up to the finish; indeed, there seemed no choice at all between the sides. C. B. Sells (Guy's), unable to procure the services of a neutral judge, ably took the unenviable post of umpire. In the first three minutes Niall scored a good goal for St. Bart's. Play having begun again, there were some

severe struggles, from which Grose (Guy's) extricated the ball and made an energetic attempt to score, which was, however, well stopped by Thomas, who the next minute had to save again. Once more Niall took the ball to Guy's end, but failed to score, so that at half-time the score was—St. Bart's, 1; Guy's, 0.

After the change Guy's pulled together excellently, and their passing was admirable, indeed, this half they pressed us very hard. Winder (St. Bart's) got in a pretty shot, which failed to take effect, while for Guy's, Payne, Grose, and Ash kept our men busy, and it took Thomas all his time to defend our goal. From a foul against Guy's Niall passed to Amsler, who with a neat and steady shot notched another goal. Once more Guy's made a well-combined attack, and Edwards was enabled to baffle our goal-keeper's defence. A few seconds only remained, and at the call of time the result stood—St. Bart's, 2; Guy's, 1.

Three cheers from Guy's for the winners terminated a very good-natured meeting.

This is the third year St. Bart's has held the cup. Since its institution Guy's has had it three times and St. Thomas's once. Every man in the match played his hardest, and all were equally to be praised, but St. Bart's has been lucky this season in its secretary, E. M. Niall, to whose energetic labours much of its success must be attributed.

Sides:—St. Bart's: H. E. Thomas (goal); L. B. Scott, M. G. Winder (backs); A. H. Bloxsome (half-back); A. M. Amsler, E. M. Niall, F. E. Tayler (forwards).

Guy's: J. H. Wilks (goal); P. G. Greenfield, H. Carlow (backs); J. L. Payne (half-back); J. R. Ash, A. Edwards, H. Grose (forwards).

SHOOTING.

ST. BART'S v. ST. MARY'S HOSPITAL.

June 8th.

ST. BART'S.		200 yds.		500 yds.		600 yds.		Totals.	
T. H. Gandy	28	29	33	31	30	31	30	90	
A. C. Brown	31	34	24	28	29	28	30	89	
R. J. Morris	29	28	30	30	23	26	30	87	
C. R. V. Brown	23	26	30	27	28	27	16	71	
O. E. Lord	28	27	16	20	26	18	26	70	
F. E. Tayler	26	28	26	20	26	20	26	70	
								Total	486

ST. MARY'S HOSPITAL.

De Morgan	26	31	32	89	
J. H. Pooley	26	32	31	89	
H. C. Jones	28	28	20	82	
H. C. Tayler	27	25	18	70	
G. N. Smith	28	22	17	67	
N. B. Cunningham	23	14	8	45	
				Total	442

Result:—Won by 44 points.

ST. BART'S v. ST. THOMAS'S.

ST. BART'S.		200 yds.		500 yds.		600 yds.		Totals.	
A. C. Brown	28	29	28	28	30	26	26	82	
R. J. Morris	30	30	22	22	25	28	25	78	
C. R. Brown	25	28	16	16	14	25	24	63	
T. H. Gandy	26	26	16	16	30	22	4	56	
O. E. Lord	14	25	24	22	22	4	4	56	
C. S. Frost	30	22	4	22	22	22	22	83	
								Total	428

ST. THOMAS'S.

C. De Z. Marshall	34	33	22	89	
H. Upcott	29	32	22	83	
H. Unsworth	30	25	22	77	
H. E. Weekes	28	28	19	75	
H. B. Newham	18	22	20	60	
F. D. Vaughan	25	19	14	58	
				Total	442

Result:—Lost by 14 points.

ST. BART'S v. WHITGIFT GRAMMAR SCHOOL.

July 2nd.—St. Bart's won by 38 points.

ST. BART'S v. GUY'S HOSPITAL.

July 6th.—15 shots at 500 yards.

ST. BART'S.		GUY'S.		Total.	
W. R. Read	65	R. J. Morris	56	65	66
A. C. Brown	66	C. S. Frost	56	66	66
O. E. Lord	62			62	62
T. H. Gandy	57			57	57
				Total	362

Travers	66	Hodgson	48
Pearson	60		
S. Turner	57		
		Total	231

Result:—Won by 131 points.

ST. BART'S PRIZE MEETING.

Held at Staines, June 30th.

Competition I.

THE WARING CHALLENGE CUP AND PRIZE (presented by Messrs. Arnold).

Aggregate of score in Competition II, and for the Hospital at Bislew.

Compt I.		Compt II. Bislew.		Totals.	
Won by R. J. Morris	65	68	133	65	68
Next best score, C. R. Brown	65	63	128	65	63

Competition II.

15 shots at 500 yards.

R. J. Morris	65
Prize presented by Messrs. Pentland.	
C. R. Brown	65
Prize presented by Messrs. Burroughs, Wellcome and Co.	
Next best score, T. H. Gandy	60

Competition III.

7 shots at 600 yards.

1st. O. E. Lord	33
Prize presented by Messrs. Down Bros.	
2nd. W. R. Read	32
Prize value 15s.	
Next best score, T. H. Gandy	32

Competition IV.

Aggregate of II and III.

1st. T. H. Gandy	62
Prize presented by Messrs. Burroughs, Wellcome and Co.	
2nd. A. C. Brown and D. Finnagan	69
Prize presented by Allen and Hanburys.	
A. C. Brown ultimately won the second prize.	

UNITED HOSPITALS' COMPETITION.

July 14th. 15 shots at 500 yards.

GUY'S (winners of Cup).		
Private Glover (7th Middlesex)	68	
Private Pearson (20th Middlesex)	67	
Private Travers (14th Middlesex)	67	
Lance-Corporal Hodgson (20th Middlesex)	66	
Private Stanley-Turner (7th Middlesex)	61	
Private Moss (20th Middlesex)	60	
Total		389

ST. THOMAS'S.

Private N. Carpmal (2nd East Surrey)	69	
Private Marshall (20th Middlesex)	62	
Private Weekes (20th Middlesex)	62	
Private Unsworth (20th Middlesex)	61	
Private Upcott (20th Middlesex)	57	
Corporal Beale (20th Middlesex)	56	
Total		367

ST. BART'S.

Captain Morris (1st V.B. Royal Lanes)	68	
Private A. C. Brown (V.M.S.C.)	65	
Private C. R. Brown (V.M.S.C.)	63	
Private Read (H.A.C.)	58	
Private Gandy (20th Middlesex)	53	
Private Frost (20th Middlesex)	54	
Total		358

ST. MARY'S.

Private Jones (V.M.S.C.)	57	
Private Pooley (V.M.S.C.)	55	
Private Tayler (V.M.S.C.)	52	
Corporal De Morgan (V.M.S.C.)	50	
Lance-Corporal Trumper (V.M.S.C.)	49	
Lieutenant Cunningham (London Irish)	49	
Total		312

Private N. Carpmal, St. Thomas's, wins the prize given by the U.H.R.A. for the highest individual score, 69 points. This is the first year the Cup has been won outside St. Thomas's.

PRIZE MEETING.

July 25th, 1898.

Competition I.

Open to all members of hospitals belonging to the U.H.R.A. 7 shots at 200, 500, and 600 yards.

1st. N. Carpmal	99
2nd. C. de Z. Marshall	90
3rd. — Pooley	85

These prizes were presented by Messrs. Burroughs, Wellcome and Co.

Competition II.—Handicap.

	Points.	H'cap.	Total.
1st. De Morgan	88	7	95
Prize value 30s.			
2nd. Travers	87	8	95
Prize presented by Messrs. Down Bros.			
3rd. Jones	82	13	95
Prize presented by Messrs. Allen and Hanburys.			
4th. Vaughan	83	10	93
Prize value 7s. 6d.			

Next best scores:

Beale	81	10	91
Cotting	79	12	91
Holford	84	6	90
Brown	84	5	89
Upcott	82	6	88
Read	81	4	85
Spurgeon	62	17	79
Trumper	58	19	77

Distribution of Prizes.

THE certificates, medals, books, and other prizes gained in the Scholarship and Prize Examinations during the year 1897-8 were distributed by Mr. Henry Power, Consulting Ophthalmic Surgeon to the Hospital, on Thursday, July 14th, at 3 p.m., in the Great Hall of the Hospital. In the unavoidable absence of the Treasurer, Mr. Alfred Coleman, Senior Almoner, took the chair, and read a letter from Sir Trevor Lawrence, in which he expressed his very great regret at his unavoidable absence, and his hearty good wishes for the continued prosperity of the School.

A letter from Mr. Willett, expressing his regret at not being able to be present, was read, and the surgeons present were obliged to leave early on account of a meeting of the Council of the Royal College of Surgeons.

The Warden then read the following report: "The report which it is my duty to present is in every way most satisfactory. The number of students who entered the School for the year 1897-8 was 188, as compared with 165 in the preceding year. Of the 188, 97 entered to the full curriculum, as compared with 84 in the previous year; 69 entered for special courses of instruction, and 22 for the Preliminary Scientific Class. St. Bartholomew's again takes the lead amongst metropolitan medical schools in the number of entries. The total number of students in attendance for the year has been 552.

During the past year the most important change in the Hospital Staff has been the retirement of Sir Thomas Smith from the position of Surgeon. He was a member of the Staff for thirty-four years, serving nine years as Assistant Surgeon and twenty-five years as Surgeon. His retirement was much regretted by both his colleagues

and the students, by all of whom he is regarded with the highest esteem and respect. He has been elected Consulting Surgeon to the Hospital. The vacancy caused by Sir Thomas Smith's retirement has been filled by the election of Mr. Walsham, who for his long service as Assistant Surgeon and as Lecturer on Anatomy has fully earned his promotion. The vacancy among the Assistant Surgeons has been filled by the election of Mr. D'Arcy Power. Mr. Walsham has been succeeded in the orthopaedic department by Mr. Bruce Clarke. Another change in the Hospital Staff has been the retirement of Mr. James Berry from the position of Surgical Registrar, which office he has filled for nearly seven years with conspicuous success and ability. Mr. Berry has been succeeded by Mr. H. J. Waring.

In the *Medical School* there have been several changes. Mr. Waring has resigned the Senior Demonstratorship of Anatomy, and has been succeeded by Mr. R. C. Bailey; whilst Mr. Percy Furnivall has been elected to a full Demonstratorship of Anatomy. Mr. Phillips has been elected to an Assistant Demonstratorship of Anatomy, and Dr. Christopherson has succeeded Mr. Sloane, whose term of office has expired. Mr. Pigg, having been appointed Demonstrator of Pathology in the University of Cambridge, has been succeeded by Dr. Morley Fletcher as Assistant Curator of the Museum. Dr. C. H. Roberts, whose term of office as Demonstrator of Midwifery has expired, has been replaced by Dr. J. Morrison, and Mr. T. J. Horder has been appointed to succeed Dr. Morrison as Assistant Demonstrator of Physiology.

Dr. Drysdale has followed Dr. Morley Fletcher as Assistant Demonstrator of Practical Medicine, and Dr. Horton-Smith has been appointed Assistant Demonstrator of Practical Pharmacy. Mr. C. J. Thomas and Mr. R. C. Elmslie have been appointed Assistant Demonstrators of Biology, and Mr. W. C. Reynolds has been elected Assistant Demonstrator of Chemistry in place of Mr. R. C. T. Evans.

During the year also Dr. Shore has resigned the office of Warden of the College and Secretary to the Medical School, and will be succeeded at the end of the summer session by Dr. J. Calvert.

By his retirement from the Wardenship, which he has held for seven years, Dr. Shore does not sever his connection with the School, for he continues to hold the Lectureship on Biology and Comparative Anatomy.

On the death of Professor Roy, our former Lecturer on Pathology, Dr. Kanthack was early in the year appointed Professor of Pathology in the University of Cambridge.

The work of the pathological department continues to increase, and the medical officers and lecturers earnestly trust that the Governors will be able shortly to provide the increased laboratory accommodation which this department so urgently needs.

Dr. Walter Emery, who has held the Treasurer's Research Studentship in Pathology for the past year, has done some excellent work, the results of which he hopes shortly to publish. It is a subject for congratulation that the Studentship given annually by Sir Trevor Lawrence has in the past four years yielded such excellent results, and has indirectly stimulated a desire to engage in pathological research on the part of the senior students in the School.

Amongst the distinctions which have been won by St. Bartholomew's men during the past year is the *Jacksonian Prize* of the Royal College of Surgeons, which has been awarded to Mr. Percy Furnivall for his essay on "New Growths of the Stomach and Intestines." This is the *fourth* successive year in which the *Jacksonian Prize* one of the highest British honours in surgery—has been gained by a St. Bartholomew's man, and Mr. Furnivall is to be congratulated on maintaining the good reputation won by Mr. Waring, by Professor Kanthack, and by Mr. Bailey in the three preceding years.

In examinations the students have well maintained the high reputation of the Hospital. At the Royal College of Surgeons fifteen have passed the final examination for the Fellowship of the College, and at the last examination in May nearly one half of the total pass list consisted of St. Bartholomew's men.

At the examinations of the Conjoint Board seventy-eight have passed all parts of the Final Examination, and received their diplomas of L.R.C.P. and M.R.C.S., whilst corresponding numbers have passed the various earlier and intermediate examinations.

At the University of London five have taken the degree of Doctor of Medicine, one, Dr. Emery, obtaining the marks qualifying for the Gold Medal. Four have taken the degree of Bachelor of Surgery; one, Mr. E. J. Toye, securing a First Class Honours in Surgery. Fourteen have taken the degree of Bachelor of Medicine; one, Mr. E. J. Toye, having been awarded a First Class Honours with the Scholarship and Gold Medal in Obstetric Medicine. It is specially noteworthy that the Scholarship and Gold Medal in this subject has

been carried off by St. Bartholomew's men for the past four years in succession, viz. by Mr. W. E. Lee, Mr. S. Gillies, Mr. W. Emery, and Mr. E. J. Toye. Twenty-seven have passed the Intermediate Examination in Medicine, and twenty have passed the Preliminary Scientific Examination. Amongst those who have passed the Preliminary Scientific, Mr. E. C. Williams secured honours in Chemistry.

In the University of Cambridge seven have taken the degree of Doctor of Medicine, eight have passed the first part, and fifteen the second part of the Final Examination for the degree of Bachelor of Medicine, whilst seven have taken the Diploma in Public Health. In securing public appointments, and in gaining commissions in the Indian, Army, and Naval Medical Services, old St. Bartholomew's men have fully maintained the reputation of the Hospital.

During the year the University of London Commission Bill has been re-introduced into Parliament, and has proceeded a stage further than its predecessor of last year, having now passed its second reading in the House of Commons. We sincerely hope that the Government will succeed in passing it into law during the remainder of the session, and that by its means a University degree in London may be made more accessible to our students, and our School become a part of a great Metropolitan University.

In inter-hospital sports our students have held their own in competition with other Medical Schools, and our cricket and football teams are in every way creditable. The cricket pitch at Winchmore Hill has been found to require relaying, and has been relaid at a cost of £85.

In conclusion, I desire to thank the Treasurer and Governors of the Hospital, in the name of the Medical Officers and Lecturers, for the keen interest they continue to take in the welfare of the Medical School.

Mr. Power then distributed the prizes to the successful students, who were presented to him in order, beginning with the Jefferson Exhibitioner and ending with the Lawrence Scholar and Gold Medallist as follows:

Jefferson Exhibition	...	L. R. Tooswill.
Preliminary Science Exhibition	...	E. G. Pringle.
Junior Entrance Scholarship in	...	H. R. Kidner.
Science	...	[E. C. Williams. }Æq.
Senior Entrance Scholarship	...	C. F. West, R.A.
in Chemistry and Physics	...	
Senior Entrance Scholarship	...	W. M. Fletcher, B.A.
in Biology and Physiology	...	F. C. Shruball, B.A.
Shuter Scholar	...	
Junior Scholars—Chemistry	...	1. R. C. Elmslie.
and Physics	...	2. F. N. White.
Junior Scholars—Anatomy and	...	1. E. C. Williams.
Biology	...	2. E. B. Smith.
Treasurer's Prize—		
1. T. C. Neville.	...	5. N. E. Waterfield.
2. E. B. Smith.	...	6. E. C. Williams.
3. T. P. Baldwin.	...	7. T. R. Coudrey.
4. J. Corbin.	...	8. A. S. Petrie.
Senior Scholarship	...	R. C. Elmslie.
Foster Prize—		
1. { R. C. Elmslie } Æq.	...	6. W. R. Read.
{ H. Love. }	...	7. E. W. Ladell.
2. F. N. White.	...	8. E. L. Martin.
3. R. T. Worthington.	...	9. H. J. Slade.
4. A. E. Thomas.	...	
Harvey Prize—		
1. S. G. Mostyn.	...	3. F. Gröne.
2. R. C. Elmslie.	...	4. E. W. Ladell.
Wix Prize	...	W. E. L. Davies.
Hichens Prize	...	F. Gröne.
Kirkes Scholarship and Gold Medal	...	R. Hatfield.
Matthews Duncan Medal	...	J. L. Maxwell.
Brackenbury Surgical Scholarship	...	H. Mundy.
Brackenbury Medical Scholarship	...	C. Riviere.
Lawrence Scholarship and Gold	...	
Medal	...	T. J. Horder.

Afterwards Mr. Power delivered a short appropriate address. Dr. Church proposed and Dr. Moore seconded a vote of thanks to Mr. Power, which was carried by acclamation. Sir Dyce Duckworth proposed a vote of thanks to Mr. Coleman for presiding, and the proceedings terminated.

Reviews.

OVIARTOMY AND ABDOMINAL SURGERY, by HARRISON CRIPPS, F.R.C.S. London: J. & A. Churchill, 25s.

Mr. Cripps has performed the operation of abdominal section nearly a thousand times; in this volume he honestly and concisely reviews the results of his work, and in the light of his own experience deduces the principles and elaborates the details which make for success in this branch of surgery.

The book could have been written by no one but a surgeon of great experience, who has thought deeply and clearly over what he has seen, and who has been strong enough to reject the traditions of his art, when these do not rest upon a foundation of reason.

Mr. Cripps's work commences with Chapter II; here we have a description of the Martha Theatre, and a practical account of the measures necessary to insure asepsis at the operation. One or two points which are apt to escape observation, but which are of importance, are emphasised—notably details of lighting and ventilating and of the arrangements of the taps and basins.

We cannot agree with the method of preparation of the patient's skin advocated—in 20 carbolic acid is an extremely irritating dressing, and superficial sloughing on more than one occasion has followed its use. We believe also the use of turpentine or ether in removing the fat and sebaceous material to be essential to insure asepsis. The chapter on the diagnosis of ovarian tumours is perhaps disappointing, and indeed throughout the book the sections dealing with diagnosis do not reach the high standard of excellence attained by those which deal with operative measures. This is no doubt due to a great extent to the impossibility of teaching diagnosis in any other way than at the bedside. In a text-book the method of exclusion has to be almost entirely employed, whereas the successful practice lies in observing facts and drawing simple deductions from them. Two important omissions strike one in reading the chapter: in the diagnosis of ovarian cyst from obesity, the condition of the umbilicus is not mentioned; and in the case of uterine fibroids, the help which can be obtained from the passage of the bladder sound is ignored. The chapters devoted to ovariectomy and its complications are perhaps the most valuable part of the book, and form a masterly contribution to the literature of the subject. We know of no article which so clearly sets forth the complications of this often most difficult operation, and which gives so much valuable help in dealing with them.

Mr. Cripps pleads earnestly for the long incision, but surely the argument "hernia nearly always occurs at the lower angle of the wound whilst incisions are extended upwards" contains a fallacy.

The chapter on the after-treatment is excellent, and the description of the troublesome symptoms which may occur is very true to nature. Shock, vomiting, gaseous distension of intestines, the three commonest difficulties, are given their due prominence, whilst rarer complications are also discussed. Hysterectomy by the extra- and intra-peritoneal methods is fully discussed, and the operation of abdominal hysterectomy for carcinoma of the cervix finds a place, but the enormous mortality of this procedure, even in the hands of most experienced surgeons, is scarcely sufficiently emphasised.

The author's work upon intestinal obstruction, both in its acute and chronic form, is so well known that to many of the subscribers of this JOURNAL the chapters devoted to these subjects will be familiar reading. Inguinal colotomy, which Mr. Cripps has done so much to place upon its present firm basis, receives a careful and full description, the chapter being an abridgment from the author's book on rectal cancer; the various forms of intestinal anastomosis are discussed and described. The surgery of the kidney has been entrusted to Mr. Bruce Clarke, who in a chapter of only thirty pages gives a general survey of the subject. Mr. Lockwood has written upon the radical cure of hernia a most valuable chapter, in which he draws attention to the classes of cases which are not suitable for operation, and gives a full description of that modification of Bassini's operation which his large experience has taught him to regard as the best. The anatomy of the abdomen has been described by Mr. Waring; it is difficult to see what has been the precise object in inserting this section—it is a chapter of descriptive anatomy, which more fittingly finds a place in works devoted to that subject, and attention has not been especially directed to points of surgical importance.

A word of praise is due to the printing and binding of the book; the illustrations in the text are both artistic and accurate. We congratulate Mr. Cripps most heartily upon the production of this volume; the style is clear, and the English is good. Experienced

surgeons cannot fail to learn much from it, and to those whose operating days are just beginning it will prove invaluable.

SIR BENJAMIN BRODIE, by TIMOTHY HOLMES, M.A., F.R.C.S. (Masters of Medicine Series). (London: Fisher Unwin and Co. Price 3s. 6d.)

We have learnt to expect excellent and interesting books in this series, and Mr. Holmes' biography certainly forms no exception. Sir Benjamin Brodie held such a prominent position in the profession in his day and had so commanding a personality that he naturally provides an excellent topic on which to discourse. His portrait (from Watts's picture) which adorns the book expresses the man, thoughtful, powerful, and successful. He was an indefatigable worker from the early days in Abernethy's anatomy class, where he formed a warm friendship with Lawrence through the weary days of waiting on to the full tide of success, culminating in his election to the presidency of the General Medical Council and of the Royal Society in the same week. Every honour open to the profession crowned his days.

Brodie was a student at a time when medical training was largely unorganised, and he lived to see the day when, largely through his agency, the outlines of the present system were laid down. He early discovered the bad effects of the apprentice system, and laboured to make clinical teaching one of the responsible duties of the whole medical and surgical staff of the hospital. He learned from Jeffreys the great value of note-taking in clinical work, impressing its importance on all his students, and was the first to appoint clinical clerks in the wards. He agitated for the abolition of that system of life examinations at the College of Surgeons so advantageous to methods of "cram," and added to the status of the College by the introduction of the diploma F.R.C.S.

His contributions to medical literature were of great value in their time, especially his work on "Diseases of the Joints," the first attempt at a scientific study of the subject. In this he calls attention to the question of neurotic affections of the joints, which of late has come so much to the fore. Scarcely inferior in value are his works on diseases of the urinary organs, and on the treatment of drowning. It is difficult to realise that books so philosophical in tone were penned amid the distractions of the largest surgical practice in London in that day.

Mr. Holmes has played his part well. He has enriched his book with interesting sketches of St. George's Hospital and its distinguished men of the time—Dr. Matthew Baillie, for instance, and Dr. Thomas Young, better known for his researches in optics, but no mean physician, as evinced in his advocacy of rational treatment in the days of "heroic" remedies. The thorny subject of Sir Everard Home is also handled judiciously. Moreover we have Mr. Holmes' comments on many important points, such as the mode of medical education and examinations, on homeopathy and other forms of quackery, and on the manifest drawbacks in having a large and inexperienced electorate to the staff of hospitals. Altogether a most interesting book.

Appointments.

BILL, J. F., M.B.Lond., M.R.C.S., L.R.C.P., appointed Senior House Surgeon to the London Temperance Hospital.

HEATH, CHARLES J., F.R.C.S., appointed Surgeon to the Throat Hospital, Golden Square, London.

HEDGES, C. E., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Medical Officer for the Workhouse and 1st District of the Newport (Salop) Union.

THORNE THORNE, LESLIE, M.D., B.S.Durh., M.R.C.S., L.R.C.P., appointed Medical Examiner to the Technical Education Board of the London County Council.

WAGGOTT, ERNEST B., M.B., appointed Surgeon-Lieutenant, Medical Staff Corps, in the London Companies.

WHITE, C. P., M.B., B.C.Camb., F.R.C.S.Eng., L.R.C.P.Lond., M.R.C.S., appointed a Demonstrator of Pathology for the Department of Medicine of the Yorkshire College.

WOODD, CHARLES S., L.S.A., has been appointed Medical Officer for the Watermen's and Lightermen's Asylum at Penge, S.E., vice C. George Woodd, resigned.

Examinations.

UNIVERSITY OF LONDON.—*Intermediate Examination: Second Division.*—H. A. Colwell, E. W. J. Ladell, E. V. Lindsey, J. A. Lloyd, F. N. White. *Excluding Physiology: Second Division.*—S. B. Green, R. A. Lloyd, E. C. Mackay, C. H. D. Robbs, J. J. S. Scrase, A. S. Woodwark. *Physiology only.*—N. C. Beaumont, A. B. Brown, E. M. Niall, T. M. Pearce, E. Wethered. *Third Class Honours in Materia Medica.*—F. Grono.

Preliminary Scientific Examination.—*Entire Examination: First Division.*—A. F. Foster, A. Hamilton, T. H. Harker. *Second Division.*—G. E. Aubrey, T. Bates, E. G. D. Milson. *Chemistry and Physics.*—W. C. F. Harland, O. E. Lord. *Biology.*—A. C. Brown, E. S. Ellis, H. Falk, J. Ferguson, R. Holby, N. Macfadyen, A. R. Neigan, J. M. Plews, F. Weber, A. D. White, L. L. Winterbotham, T. B. Davies, C. R. Keed.

Intermediate Science and Preliminary Scientific conjointly: Third Class Honours in Inorganic Chemistry and Zoology.—C. C. Robinson.

UNIVERSITY OF ABERDEEN.—*Degree of M.D.*—David Ross.

CONJOINT BOARD.—*First Examination: Chemistry.*—F. S. Lister, A. J. L. Speechley, L. K. Tosswill, G. C. J. Acres, A. H. Bateman, J. G. de G. Best, J. W. Cleveland, J. Corbin, F. R. Couldrey, A. Hallows, C. W. C. Harvey, F. Harvey, E. C. Hodgson, J. G. Ingouville, C. F. Nicholas, C. V. Nicoll, N. M. Wilson, J. E. L. A. Turnly, A. P. Salt, H. E. Stanger-Leathes. *Practical Pharmacy.*—F. S. Lister, C. H. R. Ball, F. W. Jackson, G. Hughes, W. E. L. Davies, E. A. Donaldson-Sim, G. S. Ewen, I. H. Fowler, H. S. Greaves, P. B. Grenfell, A. C. Young, E. O. Hughes, C. R. Keed, G. J. A. Leclzle, H. M. H. Melhuish, H. Mills, F. D. Parbury, T. C. Neville, D. S. Sandilaud, W. H. Scott, E. B. Smith, A. E. Thomas, R. J. P. Thomas, H. V. Wenham, C. C. C. K. White, A. T. Compton. *Elementary Biology.*—H. M. Huggins, C. W. O'Brien, A. J. L. Speechley, G. Hughes, L. B. Bigg, A. H. Blossome, A. O'Neill, R. C. Wilmot.

Second Examination: Anatomy and Physiology.—C. H. Turner, R. Thompson, H. H. Sloane, E. L. Martin, H. E. G. Boyle, M. B. Scott, G. H. Low, W. G. Pagot, G. M. Seagrove, C. E. Hogan, L. E. Hughes, V. G. Heseltine, J. H. Wroughton, V. J. Duigan.

The following having passed all the subjects of the Final Examination have received Diplomas.—W. D. Harmer, G. Wedd, P. J. Camidge, G. F. Briggs, R. F. Myers, K. R. Hay, J. K. S. Fleming, G. E. Gask, W. H. Cazaly, J. J. Hogan, A. O. B. Wroughton, J. Dalebrook, H. E. Waller, G. P. Taylor, G. B. Nicholson, G. E. French.

SOCIETY OF APOTHECARIES.—*Medicine (Section II).*—G. C. Hobbs.

Pathological Department of the Journal.

SPECIMENS sent by subscribers only to the JOURNAL will be examined in the Pathological Laboratory, and a report furnished under the supervision of Dr. Andrews, at the following rate:

Ordinary examination, Bacteriological or Pathological, such as tumour, membrane, or sputum . . . 2 6
Ordinary (qualitative) urine examination . . . 2 6

Any further report will be charged at a special rate. If a mounted specimen be desired an extra charge of 1s. will be made. If a telegraphic report be required the cost of the telegram will be charged in addition.

Specimens must be accompanied by the fee and a stamped addressed envelope, in which the report will be sent as soon as possible. Specimens, with, if possible, a short history of the case, must be addressed to "The Manager of the Journal," with "Patho-

logical Department" written in some conspicuous place on the wrapper.

On application to J. Russell, Museum Assistant, a set of bottles containing hardening fluids, and ready for sending away by post, can be obtained or remitting a postal order for 2s. 6d.

Correspondence.

To the Editor of the St. Bartholomew's Hospital Journal.

SIR.—The majority of the attendants at the Medical School held their first annual outing on Sunday, July 10th, 1898. They left Cannon Street at 9 o'clock, and arrived at Sandgate at 11.15. After a pleasant stroll by the sea they adjourned to the Grosvenor Hotel, where a most excellent dinner was provided at 1 o'clock. After dinner a trip was made to Folkestone and back to the above hotel in time for tea. Having spent the first annual outing in such a pleasant manner, the hope was expressed by the attendants that on some future occasion it might be possible for arrangements to be made that would enable them to go on Saturday instead of Sunday.

E. W. HALLETT, } Stewards.
ED. BRIDLE, }

Birth.

KEOGH MURPHY.—On July 17th, at Princes Square, W., the wife of J. Keogh Murphy, M.B.Camb., L.R.C.P.Lond., M.R.C.S., of a son.

Marriages.

DALBY—JEX.—On July 25th, at St. Paul's, Brighton, by the Rev. J. H. Ashley Gibson, M.A., John Lyttleton, of Norfolk House, 13, Buckingham Road, Brighton, only son of Major N. B. Dalby, of Ealing, to Mary, daughter of Mrs. B. Jex, of 44, First Avenue, Hove, late of British Honduras. No cards. At home Oct. 1st and 8th, 4 to 6.

EDELSTEN—MUSKETT.—On August 10th, at the Parish Church, Corfe Mullen, Dorset, by the Rev. Elliott-Drake Briscoe, M.A., assisted by the Rev. R. Plumtre, M.A., Rector of the Parish, and the Rev. F. L. Schreiber, M.A., Ernest A. Edelsten, M.B., M.A., Oxon., of Brixton, S.W., eldest son of L. Malin Edelsten, Esq., of Grappenhall, Cheshire, to Catherine Helen, daughter of the late John Musket, Esq., of Diss, Norfolk, and of Mrs. Moon, of Corfe Lodge, Wimborne, and granddaughter of the late John Gould, Esq., F.R.S.

HENDLEY—PETRIE.—On July 7th, at the Parish Church, Eastbourne, by the Rev. J. H. Copleston, Rector of Offwell, Devon, assisted by the Rev. H. B. Otley, Vicar of the Parish, Surgeon-Captain Arthur Gervase Hendley, I.M.S., youngest son of the late Surgeon-General John Hendley, C.B., to Jessie Graham, eldest daughter of J. H. Petrie, Esq., 5, South Cliff, Eastbourne.

MACKINTOSH—BALLARD.—On June 18th, at Christ Church, Lancaster Gate, W., John Stewart Mackintosh, M.R.C.S., L.R.C.P., to Alice Emmeline, daughter of the late Edward Ballard, M.D., F.R.C.P., F.R.S.

MAHOOD—SCOTT.—On July 6th, at Northam Church, Allan Edward Mahood, M.B., F.R.C.S., of Odun House, Appledore, to Caroline Eva Stanley, eldest daughter of the late Lieut.-Col. Stanley Scott, Bombay Staff Corps, formerly of Northam House, Northam, North Devon.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette, Nursing Record, L'Echo Medical, St. George's Hospital Gazette, St. Thomas's Hospital Gazette, St. Mary's Hospital Gazette, The Stethoscope, Middlesex Hospital Gazette, The Hospital.*

St. Bartholomew's Hospital



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NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C., BEFORE THE 1ST OF EVERY MONTH.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial or otherwise, relative to Advertisements ONLY, should be addressed to J. H. BOOBY, Advertising Agent, 29, Wood Lane, Usbridge Road, W.

A Cover for binding (black cloth boards with lettering and Kings Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d., or carriage paid 2s. 3d.—cover included.

St. Bartholomew's Hospital Journal,

SEPTEMBER 14th, 1898.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

On Diagnosis.

By HENRY T. BUTLIN, D.C.L., F.R.C.S., Surgeon to the Hospital.

I. WHAT DIAGNOSIS IS ;

Being the Introduction to a series of Clinical Lectures on the same subject.



ENTLEMEN.—Your diagnosis of a case is neither more nor less than your opinion on the nature of the disease. The opinion may be right or wrong, or partly right; and the frequency with which it is right will largely depend on the manner in which the opinion is formed, and on the care which is exercised.

I often wonder how the diagnosis of the future will be made. I suppose that no one will dare to make a diagnosis without the employment of special methods and special instruments; and perhaps, in the large towns at least, there will be persons whose sole business it is to diagnose the nature of disease, and not to treat it. Even now you are so accustomed to see special instruments and special methods employed, that you can scarcely conceive that a correct diagnosis can be made without them. You cannot imagine this Hospital without the Röntgen rays, without an electrical or a bacteriological department; without the cardiograph and sphygmograph; without the cystoscope, the laryngoscope, the ophthalmoscope; with only one microscope, which scarcely anyone could use with perfect confidence. You will think that I am speaking of our Hospital as it was in the Middle Ages, not as it was when I first remember it—as, indeed, I am thankful to remember it; for I cannot but think that it was an advantage to have learnt something of the art of diagnosis from men who were accustomed to practise it by careful education of the senses, especially of sight and touch, by close study and comparison of post-mortem appearances with ante-mortem symptoms, and by careful training of the mind in the weighing of evidence. I have sometimes likened these men to the mariner before the invention of the compass. Just as he made his way from port to port by careful study of the sky, and by the observation of various landmarks and their relative bearing, so the physicians and surgeons of the past made excellent diagnoses of disease by the careful observation and balancing of a hundred little signs which we are now in danger of disregarding.

We are in danger of disregarding them because we think them no longer necessary. We think we have at our command better and more certain methods, and can make a diagnosis with precision where our fathers would have been in doubt.

In some cases this may be true; but in many cases it is far from the truth. Even if it were wholly true it would only be so for those more fortunate individuals who are experts in the use of special methods, or who are

so situated as to be able to call in to their assistance at all times experts in the use of each special instrument and method. This cannot be the lot of all, or even of the large majority of those who listen to me to-day, and on them I would venture to impress the necessity of precisely similar training in diagnosis to that which was employed fifty or a hundred years ago. Special instruments and methods are, I would have you remember, a kind of double-edged tools, requiring to be used with great skill and discretion. Of the last of them, the Röntgen rays, we are just beginning to learn that skiagraphs are not so easily read as we thought they would be, but may need very cautious interpretation. And the results of microscopical and bacteriological investigation must be accepted with reserve if they are distinctly contrary to what would be expected from the general examination of the case. In the first place, there is frequently a difficulty in discovering such evidence as might certainly be expected. Quite lately I removed the profoundly tuberculous kidney of a girl from whom the urine and the discharge from an abscess in the region of the kidney had been repeatedly searched in vain for tubercle bacilli. And in the second place, they may discover what they certainly ought not to do. Tubercle bacilli were found on one occasion in the purulent urine of a lady. They were never found on any subsequent occasion, and the lady made an excellent recovery, and remains well to the present time; so that it is difficult to believe she was suffering from tubercle in the kidney. But if not, where did the tubercle bacilli come from on that one occasion on which they were discovered by a competent bacteriologist?

I doubt whether there is any greater pleasure in the medical life of a medical man than the making of a correct diagnosis in a difficult case; and this is a pleasure which can only be frequently repeated by those who have taken the pains to study the art of diagnosis. For diagnosis is not an inspiration, as some people appear to think, but an art. And although some men seem to be endowed with an aptitude for diagnosis which enables them to perform their work more quickly and more cleverly than others, there is no person in our profession who is not the better for studying the art of diagnosis just as he does any other part of his work. In order that you may do so with greater success I propose in this and some following lectures to give some general rules which may be useful, and to show how those rules apply to the diagnosis of the disease of particular parts of the body.

Scepticism and Method.

Two moods of mind are most desirable in approaching the diagnosis of every case—scepticism and method. The kind of scepticism which is most useful is that which declines to take anything for granted,—the histories which patients give of themselves, of their past diseases, of what

has been found or done by other medical men; statements by other people of the characters of material which you might see for yourself; the nature of material which appears to the naked eye to be certainly one thing, but which microscopical examination might prove to be another thing. Nothing should be taken for granted which can be proved. Patients will bring you bottles which are said to contain this or that substance. Examine the material, and be sure it is what it purports to be. A lady brought up purulent fluid from the mouth, and was operated on under the impression that it passed from the middle ear into her mouth through the Eustachian tube; but the seat of the suppuration was not revealed by the operation. Further advice was sought, and the advice was that the fluid should be carefully examined. No pus was found in it, but materials which probably came from the stomach. More than once patients have been sent to me whose urine appeared to contain large quantities of pus, and the pus was thought to come from the kidney. Microscopical examination showed that the deposit consisted of phosphates, not of pus.

Method in examination is quite as important as scepticism, for it will again and again prevent you from overlooking some part of the examination which may be essential to a thorough diagnosis. Probably a similar routine is followed by most of those who are busy in practice. That you may have a more vivid idea of such a method, imagine yourself for twenty minutes in the position of one of us. In consulting practice, patients sometimes come with a letter of introduction, sometimes without any introduction. As such a patient enters the room you notice, as a matter of routine,

(1) *The general aspect of the patient*, the sex and probable age. A certain sex and age may almost preclude some diseases, while they largely increase the liability to others. For example, you understand that your next patient is supposed to be suffering from epithelioma, and there enters the room a young lady of seventeen or eighteen years of age. You are at once prejudiced against the diagnosis of epithelioma, for it is so unlikely a disease in that sex at that age. Of course this probability of liability must not be overstrained. Quite recently a young girl suffering from epithelioma of the face has been exhibited at our consultations; she was scarcely more than a child. You notice whether the patient is young-looking or older than their age, if you happen to be aware of it. You note the carriage and elasticity, whether the individual looks well or sickly; and you may chance to see definite marks of past or present disease. It takes long to write this down, but the observation of such matters becomes so much a question of habit that it is done before the usual courtesies of a first meeting are over.

The social position of the patient ought not, one would think, to exercise an influence on the diagnosis of the case. But it undoubtedly does so. I used to think the family

attendant had an advantage over the consultant in this respect, but there is something to be said on both sides. Many years ago I saw in consultation the child of well-to-do parents, and was particularly struck with the refined appearance of the mother. The doctor asked me afterwards whether I had noticed anything peculiar about her, and I replied that she appeared to me a very refined and pleasant-looking person. What was my surprise when he informed me that she was a dipsomaniac of the worst description! On the other hand, the family attendant sometimes labours under an actual disadvantage from too intimate a knowledge of his patient. A gentleman was once sent to me that I might decide whether his tonsils should be removed. As he entered the room his forehead appeared curiously spotted, and a further examination discovered that he was suffering from active secondary syphilis. I wrote to his doctor to this effect, and added that the primary sore was even then not healed. I received a letter by return of post, in which the writer regretted his mistake, and excused it on the plea that he could not have believed that so reputable a man, whom he had known so long a time, was suffering from syphilis, particularly as he was a *churchwarden*.

(2) When the patient is seated you naturally listen to the *history* of his present and past illnesses, and inquire into the family history. A good and reliable history is of great value; but you must not be disappointed at not obtaining it. The histories given by hospital patients are for the most part defective, and you will find that our registrars generally adopt the rule of "short history, long case," on this account. Even in your dealings with educated persons you will have to exercise great caution in accepting the statements which they make. First, there is the absence of information, especially in regard to family history. I was anxious to discover a history of tubercle in the family of a man of my own age, but there was not any. Both his grandmothers had died long before he was born, and at my request he inquired (for the first time in his life) what they had died of. The answer was that both ladies had died at an early age of consumption.

Worse than the absence of information is deliberate omission or falsification. Some patients regard the man whom they consult in the light of a judge, in whose mouth lies the verdict of life and death, and before whom their cause is to be pleaded. They wish for a favorable verdict; and, in order that he may not be prejudiced against them, they deliberately withhold information which he ought to have, or even misrepresent facts. Some time ago I saw a lady with an enlarged gland. Her mother wrote to me in great trouble, asking whether I thought it could be strumous. If so, she could not understand it, as there was nothing of that kind in her family. It so happened that I knew, what was indeed notorious, that another son and daughter were actually dying of consumption. I doubt whether she intended to mislead me, but she could

not admit, even to herself, the existence of such a disease in her family.

(3) After the history follows the *examination of the affected part*, which should be as thorough and methodical for each part as it can be. Frequently a comparison of the corresponding part on the other side of the body is of the greatest assistance. I shall speak more of this in the lectures on the diagnosis of special parts of the body, and will here only again warn you not to take anything for granted, to trust as little as possible to examinations made by other persons, and to see and feel everything for yourself.

(4) *A general examination of other parts* of the body may be impossible to carry out in every case, and may seem unnecessary in many cases, but the neglect of such an examination is responsible for more mistakes in diagnosis than you would believe. The signs of past tubercle, of past syphilis, and of other troubles may be present, but you may have to look for them. The patient may not be aware of their importance, scarcely indeed of their existence. A lady was sent to a consultant for his opinion on the desirability of removal of a large part of her tongue for cancer. Not taking the diagnosis for granted, and not content with examining the tongue, he examined the nose and larynx, and on inquiry, finding she had suffered from trouble in one leg, examined this also. In all these parts there was ulceration or scarring characteristic of tertiary syphilis, and the patient was rapidly cured of the "cancer" by iodide of potassium.

The making of the diagnosis.—By this time the materials are ready for the making of the diagnosis, and this may be done in more ways than one. The symptoms may belong to one particular disease, and to that disease alone. Such symptoms are called pathognomonic, and may justify a *positive* or *direct* diagnosis; but in most cases the diagnosis lies between two or more diseases, and is best arrived at by a process of exclusion. The diagnosis is *indirect*; it may be called *negative*. The reasons against each of the possible diseases are considered, and that against which the fewest or the least reasons can be set down is selected. Then the case in favour of the diagnosis of the selected disease is worked up, and all the symptoms in favour of it are marshalled to make it as strong as possible.

The doctrine of chances.—My colleague, Mr. Marsh, is fond of speaking of the value of the doctrine of chances in the making of a diagnosis. Some diseases are so much more common than other diseases, particularly under certain circumstances, as of age and sex and place, that one should be very sure of one's ground in deciding against them. I quite agree with this, and it often influences each one of us; but the doctrine of chances should not be admitted into the question until this period of the diagnosis has been reached. When the diagnosis is between a rare disease and one that is common, if the evidence is nearly balanced, the diagnosis should be unhesitatingly in favour

of the common disease. The rare disease is like a bad case in court, it requires far more evidence to prove it than a good case.

The beginning of this lecture may be regarded as a warning against the use of special instruments and methods. I hope that you will understand that it was only intended to warn you against too great reliance on them, and to show that they should be employed rather as aids to diagnosis than as the chief or only means. Now let me say that they should certainly be used in every case in which it is possible to take advantage of them. I use the two with which I am familiar (the microscope and the laryngoscope) in every case in which they may throw light on the nature of the disease; and both in the hospital and out of it I call in the aid of persons who are skilled in the use of other instruments and methods which may help in the making of a difficult diagnosis. With such aid a diagnosis which might still be a little uncertain may be absolutely proved; and I should think it wrong to neglect any means within my reach to prove the diagnosis to the hilt. I am often surprised at the neglect of special methods of examination by those who are quite able to obtain them, even in cases in which an absolutely correct diagnosis is of enormous importance to the patient. Quite lately I have been told the story of an officer who was suffering from severe ulceration of the leg. He consulted several surgeons of eminence, by whom the disease was diagnosed as cancerous, and he was urged to submit to amputation. Before doing so he showed his leg to an old friend in general practice, who suggested that a portion of the disease should be removed for microscopical examination. No cancer was found; the patient was put on large doses of iodide of potassium, and the "cancerous" ulcer quite healed. In these days such neglect of an ordinary precaution can only be regarded as a sign of overweening confidence.

In conclusion, bear always in mind that errors in diagnosis are far more frequently due to lack of care than to lack of knowledge.

II. ON THE IMPORTANCE OF SINGLE SYMPTOMS.

Intra-cranial Abscess depending on Middle Ear Disease.

GENTLEMEN,—You will wonder what there is in common in these two diseases which has induced me to place them side by side in a lecture on diagnosis. It is because they illustrate exceedingly well this section "on the importance of single symptoms." Generally we are cautious not to rely too much on a single symptom, but strive to attach to each individual symptom its proportionate value, and never to overlook a symptom, however trivial it may appear. But now I am going to show how single symptoms, which in relation to other diseases would have little value, acquire an immense importance by reason of the circumstances under which

they are observed. There are certain diseases, like those which stand at the head of this lecture, which present many and very various symptoms, and which often present symptoms which might so well belong to another or several other diseases, that it seems almost impossible to diagnose them in a difficult case. Such are intra-cranial abscess and acute septic peritonitis. Each of them may often easily be diagnosed; but the symptoms of intra-cranial abscess are sometimes so undecided, that it seems almost impossible to diagnose it from other intra-cranial diseases, and sometimes it is mistaken for a general disease which has no special relation to the brain. And the diagnosis of acute septic peritonitis is notoriously so difficult in its earlier stages, that no two surgical writers are agreed on the symptoms which should be relied on to indicate it. Yet, from a surgical point of view, there are scarcely any two diseases in which the diagnosis at an early period is likely to be so useful. The study of their symptoms is therefore quite worth your while; and I am the more pleased to direct your attention to them because I believe you will find that an examination which formerly held a high rank, but which has fallen very low in surgical estimation, deserves much more time and study than is generally bestowed upon it. It is the examination of the pulse. Formerly the rate, regularity, and character of the pulse received enormous consideration. The pulse could be set down in numbers; it afforded something definite to depend upon. With the introduction of the clinical thermometer the pulse has ceased to attract so much attention in the surgical wards. Everything is thought to depend upon the temperature, which has grown to such an importance that it has elbowed out the pulse to such an extent that in my wards, if I had not again and again insisted on it, I should find the temperature recorded in almost every case at least twice a day, and the space on the charts which is reserved for the record of the pulse quite blank. Fortunately my wishes in regard to the recording of the pulse have been respected, and I am now going to show you how important that record is in the making of a difficult diagnosis.

Intra-cranial Abscess.

As I have alluded to the points which the two diseases have in common, I shall now take them separately, and first intra-cranial abscess; and I shall take that form which is associated with disease of the middle ear, because it is the form with which I am most conversant. Under such circumstances the suppuration within the skull is usually either acute or subacute, and it often runs a very rapid course, especially during the last two or three days, or the last twenty-four hours. In such cases, too, the abscess is generally seated in the temporo-sphenoidal lobe, much less frequently in the cerebellum. It scarcely seems possible that a collection of pus of the size of a big walnut or larger should be overlooked in such a case, for it surely ought to

produce such a combination of symptoms, general and local, as could not be mistaken by a second year's student. You might easily build up the symptoms which ought to be produced by an intra-cranial abscess. For instance, they should be somewhat as follows.

Imaginary scheme of symptoms:

- Rigor and fever.
- Headache, drowsiness, and vomiting.
- Optic neuritis.
- Paralysis.

Curiously these symptoms, so far from being constantly present in cases of intra-cranial abscess, are very frequently absent, at least those of them on which you would be disposed to rely the most. For instance, beginning at the bottom of the list, there is frequently no paralysis. In the appendix to the *Surgical Tables* for the year 1896 Mr. Berry has given an excellent account of five cases of abscess of the brain which occurred in the Hospital during that year. In two of the five cases it is distinctly stated that there was no paralysis. Yet both patients died comatose. This may not appear so strange when it is remembered that paralysis in such cases may have to depend on actual interference with nerve-fibres passing through the brain from the cortical centres, and even a large abscess may be present without cutting off conduction through these fibres.

It is much more difficult to conceive how an abscess of considerable size can exist without producing sufficient increase of intra-cranial pressure to cause choking of the optic discs, but it is certain that this does happen, and by no means infrequently. Only in one of the five cases in the Hospital (in 1896) was there decided optic neuritis.

Headache is probably always present in a greater or less degree, and the patient is almost invariably drowsy, while vomiting is very common; but then these are symptoms which are common to so many and such various diseases, particularly to other intra-cranial diseases, that they are of comparatively little account in the diagnosis.

Intra-cranial abscess is rarely ushered in by a rigor, and so far from the temperature being raised and the pulse quickened, both pulse and temperature may be subnormal. Are there, then, no symptoms on which reliance may be placed in the diagnosis of intra-cranial abscess dependent on middle ear disease?

Constant Symptoms.

In such difficult cases I believe the best course is to seize upon the symptoms which are constant, or which occur in so many instances that they may be looked on as practically of constant occurrence. In these cases of intra-cranial abscess there are three such symptoms,—headache, drowsiness or languor, and slowness of the pulse. They are not necessarily all present at the same time in every case, although they are almost always so at a certain period of every case. The two former symptoms,

headache and languor, are of such common occurrence that they are of small import, but slowness of the pulse is, in my opinion, a symptom of the greatest value. You will find it noted in every one of the five cases in the year 1896. And although it is not present at the beginning of the formation of matter in the brain, it occurs in most cases at a comparatively early period. Slowness of the pulse and optic neuritis may be regarded as expressions of increased intra-cranial pressure. They ought both to occur in every case of abscess of the brain. But whereas many cases of intra-cranial abscess run their course without producing optic neuritis, scarcely one case terminates fatally without producing slowness of the pulse. It is therefore a more delicate symptom of intra-cranial pressure, and is on that account, and on account of its constancy, more valuable. Take the third case in the appendix:—A girl fifteen years of age was admitted into my wards on the 5th of June with otorrhœa of the left ear, and headache and vomiting of nine days' duration. There was no history of rigors or of fits; there was no paralysis, but there was a suspicion that the discs were a little larger than normal. Her temperature was 99°, and her pulse was 60. On the day after admission Mr. Lockwood, who was on duty for me, saw her, and decided to trephine at once over the temporo-sphenoidal lobe. No pus was found there. Mr. Lockwood was proceeding to search for an abscess in the cerebellum, when the patient became rapidly worse, and artificial respiration was performed. She never rallied sufficiently to permit any further examination, but died in three hours, during which artificial respiration was continuously performed. After her death a large abscess was found in the left lobe of the cerebellum.

I do not know whether you will be satisfied with a pulse-rate of 60 in the minute as evidence of slowness of the pulse, but if it be remembered that the age of the girl was fifteen, and at that age the rate of the pulse should be about 80; also that the temperature was 99°, with which there should have been a slightly quickened pulse, you will see that the pulse-rate was about twenty-five lower than it should have been. It is necessary to notice this particularly; for the expression slowness of the pulse must be understood to mean not necessarily an absolutely slow pulse, but a *relatively* slow pulse, a pulse which is slower than it ought to be when the other conditions are taken into account. For instance, a carpenter æt. 35 was admitted into a medical ward with headache and optic neuritis on the 6th of May. His temperature was 100.4°, and his pulse was 76. There was no paralysis, and at that time there was no discharge from the ear, yet he was suffering from an abscess of considerable size in the temporo-sphenoidal lobe. The abscess was not diagnosed at that time. On the following day there was slight purulent discharge from the right ear. He became worse, and his temperature fell to 97.4° while his pulse dropped sixteen beats, to 60 in the minute. On May 8th he was transferred to a surgical ward, but on the

way became so bad that artificial respiration was obliged to be performed. And although he was at once trephined, and began to breathe again, he never recovered consciousness, but died within two hours of the operation.

In this case the pulse was *relatively*, not absolutely, slow on the 6th of May. With suppuration and a temperature of 100.4° it should have been at least 86, not 76. On the 7th of May the drop of the pulse was as great in proportion as the fall in the temperature—16 beats to 3° . Even had the man been trephined on that day his life might have been saved.

I have carefully examined the records of the cases of intra-cranial abscess which have been under my care in order to discover the *absolute* rate of the pulse. It has scarcely ever fallen below 50 in any case, but has often been between 50 and 60. It may, and often does, vary in frequency during the course of twenty-four hours, even to the extent of 20 beats. I suppose the variation depends on temporary increase and diminution of intra-cranial tension; but the fact has led me to ask that the pulse-rate should be frequently taken and recorded in a doubtful case. You will find this variation of rate in the first two cases in the appendix. It varied from 70 to 54 in the first case; from 70 to 50 in the second case.

It is important, particularly from the operator's point of view, to notice the period of the disease at which the pulse becomes distinctly slower. It evidently is not so at the outset of the disease. In those cases, at least, in which the abscess is associated with middle-ear disease the commencement of the intra-cranial mischief is associated with a raised temperature and a quickened pulse; and these may continue for several or many days. During these days there surely must be increased intra-cranial pressure, but I suppose it is not sufficient to force down the pulse against the general conditions which combine to raise and keep it raised. But there comes a time when the intra-cranial disease is able to exercise its natural effect of lowering the rate of the pulse. And it may do so without causing any other distinct and obvious sign of increased intra-cranial pressure. What is more, I believe it does so sufficiently early to allow of successful treatment of the abscess. Certainly this has been so in every case that I have seen. One of them is so interesting in this respect that it is worthy of being recounted. On the 6th of May of this year (1898) a little girl about six years old was admitted into the hospital with discharge from the right ear of many years' standing, and pain in the head, giddiness, and vomiting of two or three weeks' duration. Her temperature was almost normal, her pulse about 100. The mastoid antrum and tympanic cavity were thoroughly opened that afternoon, and a small quantity of pus was let out; but the operation did not materially improve her condition, and I began to fear she was suffering from meningitis, in which opinion Mr. Cumberbatch joined me. There was nothing therefore to be

done by operation, and I watched the child growing slowly weaker day by day; when, early on the morning of the 18th of May, she had a fit, which was followed by two more fits in the course of the morning, one of which lasted nearly an hour. The eyes, in which nothing had previously been discovered, now presented decided optic neuritis. Between the fits the left hand and arm were thought to be weaker than the right. Her pulse, which had been up to this time always about 100, fell to between 60 and 70 in the minute. The sudden modification of the symptoms, especially the fall in the pulse and slight paresis of the left hand and arm, led me to trephine at once. About two ounces of dark, offensive pus were let out of the temporo-sphenoidal lobe, with immediate relief of the symptoms. Although there is not *proof* that this child was suffering from an abscess during the twelve days after the opening of the mastoid antrum, there is excellent reason for believing that she was. The absence of improvement after the first operation, and the immediate and continuous improvement after the opening of the abscess are evidence very little short of proof. Why she suddenly became so much worse on the morning of the 18th, and whether the accession of new symptoms depended on rapid increase in the size of the abscess or on encroachment on some more delicately balanced part of the brain, I do not know. But I imagine that increase in size of the abscess affords the simpler and more probable explanation. Although the slowing of the pulse was deferred until optic neuritis and loss of power were apparent, the opening of the abscess was performed in plenty of time to save the patient's life.

The Relative Value of Single Symptoms.

The value of single symptoms depends, as I pointed out in the last section, largely on their constancy. But there is a great difference in the value even of constant symptoms. Thus I set down three symptoms as being constant in cases of intra-cranial suppuration, or as occurring so commonly that they may be classed as constant,—headache, drowsiness or languor, and slowness of the pulse. But I adjudged the highest value to slowness of the pulse, on the principle that those symptoms are worth the most which are of rare occurrence in those diseases which are liable to be mistaken for the disease which is suspected. Slowness of the pulse is not common in acute or subacute inflammatory affections in any part of the body; and in cases of meningitis and thrombosis of the lateral sinus, from which intra-cranial abscess has to be diagnosed, the pulse is quick or very quick. There is at this moment a girl under my care in Lucas Ward, with the typical symptoms of thrombosis of the lateral sinus. She has a rapidly varying temperature, often very high, and the pulse corresponds almost exactly with the temperature. In the next bed to her is another girl, whose symptoms point to meningitis, depending on inflammation of the middle ear; and her pulse runs

habitually much over 100. Slowness of the pulse in intra-cranial affections depending on middle ear suppuration becomes, therefore, a symptom of more than usual value, because it is a constant symptom of intra-cranial suppuration, and is not a symptom of the two great affections from which suppuration has to be distinguished. I do not know whether it occurs in connection with abscess in every part of the interior of the skull, or whether it occurs earlier in connection with the abscesses of one part, later in abscesses of another part. I only know that it habitually occurs in connection with abscess of the temporo-sphenoidal lobe, of the cerebellum, and over the roof of the tympanum beneath the dura mater (subdural).

There is one symptom I have not touched on, because I really know nothing of its value. It is tenderness on palpation or percussion of the face and head. It is very highly praised by some medical men, but I suspect it is more useful in the diagnosis of tumours than of suppurations. Whether I have not applied it aright, or whether the patients have been too ill or too young, or both, to help me as they should do, I have not been able to learn much from it.

Seat of the Abscess.

This lecture is already too long to permit me to enter on the diagnosis of the side and seat of the abscess. The side you may think is always easy to determine because of the suppuration in the middle ear; but it sometimes happens that there is suppuration in both ears, and that there are no symptoms to tell on which side the abscess lies; and, as between cerebral and cerebellar abscess, there may be no differentiating symptoms. Under such circumstances we fall back on the "doctrine of chances," of which I spoke in the introductory lecture, and search for the abscess on the side on which the middle ear seems to be worse, first in the temporo-sphenoidal lobe and then in the cerebellum, in accordance with the rule that temporo-sphenoidal abscess is much more frequent than abscess of the cerebellum.

[In the study of these cases I am glad to acknowledge the assistance of my colleagues, Mr. Vernon and Mr. Cumberbatch, who have both taken a keen interest in the condition of the eye and ear in suspected abscess of the brain.]

Some Rectal Diseases.

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IV. ABSCESS AND FISTULA IN ANO.

AB SCESS in the anal region is of common occurrence, and is frequently the forerunner of fistula.

Small superficial abscesses, due to inflammation of hair-follicles, skin wounds becoming septic, and the like,

call for no special mention. They give rise to the usual symptoms, and require the same treatment here as they would elsewhere in the body.

Ischio-rectal abscesses, on the other hand, have a definite local interest, and require early recognition and active treatment for reasons beyond those that apply to ordinary abscesses.

The causes of these abscesses are, I believe, always due to some lesion in the bowel, and (contrary to the usual teaching though I know it to be) I regard all genuine ischio-rectal abscesses as produced in this manner.

The lesions which produce these abscesses are either simple fissures or ulcers, tubercular ulcers, new growths, and sometimes a high-lying non-malignant stricture.

Fissures and ulcers are by far the most common causes, and a fistula is *nearly always* the sequel in these cases.

In children threadworms are an occasional indirect cause of abscess resulting in fistula. Foreign bodies, as fish-bones and the like, by causing abrasions, or actually perforating the bowel, may produce the same disorders.

Ischio-rectal abscesses may give rise to most acute symptoms, or they may be quite slow in formation, and be in actual existence some time before the patient seeks surgical relief.

The two worst cases I have seen have both started from fissures which became septic. I detailed these in a former paper (on pruritus, fissure and simple ulcer), and I would refer my readers to them as typical cases of a bad sort.

When the abscess is of the acute variety there is no difficulty in coming to a diagnosis. The patient is quite ill, has a high temperature, and suffers great pain. On examination one buttock presents all the cardinal signs of a collection of pus, and sometimes the opposite ischio-rectal fossa is also implicated in the trouble. When the abscess is not of the acute variety a large collection of pus may exist with very little outward manifestations of its size.

The treatment of ischio-rectal abscess is the same as in the case of any other abscess. A free incision is made as soon as pus is discovered, and the abscess cavity is explored with the finger, lightly plugged, and the whole area fomented for three days. As soon as the inflammation has subsided, the desirability of doing any further operation which may be necessary is considered. In opening these ischio-rectal abscesses the first incision should be made in a direction radiating from the bowel. It is often advisable to make the original incision T-shaped by making another incision at right angles to the first one at its distal end. If any subcutaneous burrowing is suspected, this should be carefully sought after, and freely laid open on a director. It is rarely necessary to ligature any vessel, and suitable plugging is all that is wanted. At St. Mark's I have never used any anaesthetic other than a local injection of eucaine for these cases, and I find that it answers most admirably.

Most of these abscesses end in fistulæ of the complete variety, and the reason is, I believe, because they originate in an abrasion or lesion of the bowel.

Before I go into this matter it will perhaps be better to deal briefly with the main features of fistula in ano first.

The *varieties* of fistulæ are commonly described as blind internal, blind external, and complete. Now the word blind is meaningless, and in fact instead of simplifying, it only muddles the classification, such as it is, and I do not propose to use the term.

Fistulæ may be described as—

(a) Complete.

(b) Incomplete.

A *complete* fistula is one which has an external opening, an internal opening, and an intervening track. Varieties of this kind of fistulæ form what are known as the horseshoe and semi-horseshoe fistulæ.

An *incomplete* fistula may be either external or internal, according as the opening is outside, or in the bowel.

The *symptoms* of a complete fistula and of an external incomplete fistula are simple enough. They consist of an external opening which discharges pus, and which is liable to periodic attacks of pain due to local inflammation, when from any cause the pus is pent up or takes upon itself to burrow in some fresh direction.

The *symptoms* of an internal incomplete fistula are not so plain sailing. They generally consist of attacks of localised pain, more or less intense, which are relieved by a discharge of pus from the bowel.

On *examining* cases of fistulæ—in the complete and external varieties—an external opening will be seen somewhere in the circumference of the anus. If the tissues around this opening are palpated a hard ridge (likened very appropriately to the stem of a clay pipe) will be felt running towards the anus—in simple cases—and tracking in various directions as well in other varieties.

In the internal fistulæ this ridge cannot be so definitely felt, but if the affected side is compared with the other it will be found that it is harder, possibly painful, and a definitely outlined induration can generally be made out.

The *internal* opening in fistulæ is always difficult to locate without a certain amount of experience. But if Goodsall's rule with regard to these openings is remembered, and also the fact that they practically always are *between* the sphincters, much of the difficulty will disappear.

Goodsall's rule is briefly as follows:—all complete fistulæ which have their external openings in front of a line drawn transversely across the middle of the anus have the internal opening *immediately opposite* the external one.

Fistulæ which have the external openings behind this line have the internal opening in the *mid-line dorsally* only.

Now bearing this in mind, and also the most important fact that quite 95 per cent. of these internal openings lie *between* the sphincters, a little experience of touch to

differentiate between healthy and altered mucous membrane is all that is required to make a complete and correct diagnosis in these cases.

It has been my endeavour to make these papers as plainly practical as possible, but I hope my readers will forgive me if for a short while I become discursive with regard to one or two points already mentioned.

I have already stated that nearly all fistulæ with internal openings have these openings in a definite situation, viz. between the sphincters, and one naturally asks why this should be.

If my readers will refer to the first paper I wrote of this series, it will be seen there that I laid great stress on the frequency of simple ulcers occurring in the bowel between the sphincters. Continued experience and further careful investigation only bear out more fully what was stated then with regard to the situation of these ulcers, and also as to their great frequency. The cause of these ulcers is some injury to those valvular folds of mucous membrane which exist in this particular region of the bowel.

Given an ulcer in this neighbourhood, which for some reason becomes septic and pus-producing, an abscess ending in a fistula is the usual sequel. It may be fairly said, This is possible for complete and internal fistulæ, but what about external ones? My answer is that it is possible for the internal opening to heal, or it may be quite small, or the track may be tortuous. But practically it will be found that in most external fistulæ a probe can be passed right up to the mucous membrane.

To sum this up, I believe all genuine fistulæ originate from some lesion in the bowel, which is between the sphincters in nearly every case, and that an ischio-rectal abscess is always its forerunner.

A horseshoe or semi-horseshoe fistula may occur either anteriorly or dorsally; the majority of them are in the dorsal area.

In these cases a track will be found running in a horseshoe fashion at a varying distance from the bowel, and in all suspected cases careful palpation and probing must be undertaken, and the sinus laid thoroughly open. There is *usually* only one internal opening, and that falls in with the rule given above.

A troublesome form of internal fistula is the *submucous* one. Pain in these cases is not a prominent symptom, but there is a constant discharge of pus which varies in amount. On examination a large ulcerated opening is found, almost at times big enough to admit the point of the finger, and extending up from this is a soft elastic swelling, which is formed by the pus burrowing between the mucous and muscular coats. This variety is an exception to the rule I suggested above, but it is only a difference of degree.

Tubercular fistulæ have in common with the submucous variety a large ulcerated internal opening; they are apt to burrow deeply into the tissues, and the skin is of a livid

colour over them. The patients present the usual tuberculous appearance. It used to be stated, and is still believed by some, that a large percentage of fistulæ are due to tubercle. My experience at St. Mark's certainly does not bear this out, as will be seen by the statistics given below.

Rarely a patient may have two fistulæ with separate internal openings; there have been two such cases at St. Mark's in the last eighteen months.

Incontinence of feces is a possible result after these have been operated upon, and it is as well to bear this in mind.

Occasionally one sees a case of fistula which has multiple external openings. They are complete fistulæ which have tracked subcutaneously, and openings have occurred at various points.

Before discussing the treatment of these fistulæ and abscesses, about which there is a great deal to say, it will perhaps be as well to enumerate here the various cases of fistula which have come under my care and the care of my colleagues at St. Mark's Hospital since January, 1897. I am much indebted to Mr. Cudmore for helping me in this matter.

CASES OF FISTULA ADMITTED DURING 1897.

	Male.	Female.	Total.
No. of cases in all	182	111	393
Fistula dextra	40	13	53
" sinistra	16	3	19
" complete horseshoe	7	3	10
Fistula dorsal	5	4	9
Ischio-rectal abscess	4	1	5
	72	24	96

1898 UNTIL JUNE 30TH.

	Male.	Female.	Total.
No. of cases in all	102	61	163
Fistula dextra	15	6	21
" sinistra	17	4	21
" complete horseshoe	6	3	9
Fistula dorsal	2	3	5
Ischio-rectal abscess	—	—	—
Fistula internal	3	2	5
" anterior	6	—	6
	49	18	67

One case suffered from incontinence—result of operation elsewhere. There were two cases of two distinct and separate fistulæ connected with bowel, one on each side of anus.

Three cases of fistula complicated with fissure.

Twelve " " " hæmorrhoids.
Six " " " phthisis.
Four " " " stricture (all women).
One " " " diabetes.

Five cases of blind internal fistula.

Two cases of recto-vaginal fistula.

One case of anterior horseshoe fistula in a woman.

Two cases of fistulæ with multiple openings—one with ten openings, the other with forty-five.

No deaths from any of the cases.

163 cases in all—152 cases cured, 11 relieved. Of these—

One suffered from diabetes.
Four suffered from phthisis.
Two left before healed.
Four cases of non-healing not stated.

CASES OF FISTULÆ NOT ADMITTED.

85 cases in all.
Eight cases of ischio-rectal abscess—one case in which there was an abscess on each side.
Thirteen cases of fistula anterior and internal opening opposite external.
Four cases of blind internal fistula.
27 cases of fistula sinistra.
23 " " dextra.
10 " " dorsalis.
Four cases noted as being due to phthisis.
Ten cases of fistula laid open, external sphincter divided, and patients cured, except in one case.
One patient was cured of fistula, and now has pruritus.
One case complicated with diabetes.
One case operated upon five years ago elsewhere has now recurred in site of old operation.
One patient with phthisis. Abscess cavity touched with lactic acid twice weekly for three months, and then fistula laid open into bowel—now almost well.

(To be continued.)

Biographical Memoirs of Dr. Pitcairn.



WE are indebted to Dr. Harry Campbell for the following interesting cutting from the *Gentleman's Magazine* for April, 1866.

DAVID PITCAIRN, M.D., F.R.S., F.A.S., Fellow of the College of Physicians of London, and Physician Extraordinary to the Prince of Wales, was the eldest son of the gallant Major John Pitcairn, of the Marines, who was killed in the attack upon Bunker's Hill in June, 1775, and Elizabeth, the daughter of Robert Dalrymple, Esq., of Anfield, in the county of Dumfries. His paternal family was one of the most ancient in Fifeshire, deriving its name from a landed possession called Pitcairn; Nisbett in his *Heraldry* says that he has seen a charter to it dated in 1417. In the course of time one of the family acquired by marriage the estate of Forther, in the same county; after which the lands of Pitcairn went off with a younger son, from whom was descended Dr. Archibald Pitcairn, of Pitcairn, justly famed as a physician, poet, wit, scholar, and mathematician. Of the elder branch Dr. David Pitcairn became the representative upon the death of his uncle, the well known Dr. William Pitcairn, who had practised physic here for nearly half a century, and had been many years President of the College of Physicians.

Dr. David Pitcairn was born on the 1st of May, 1749, in the house of his grandfather, the Rev. David Pitcairn, minister of Dysart, in the county of Fife. When about nine or ten years old, he was sent to the High School at Edinburgh, where he remained four years; after which he went to the University of Glasgow, and prosecuted his studies there till he arrived at the age of twenty. At this period of his life he used to spend much of his leisure time with the family of the Rev. James Baillie, minister of Bothwell, in the county of Lanark, and father of the present Dr. Matthew Baillie, of London, and of the celebrated dramatic writer, Miss Johanna Baillie. During this intercourse commenced an affectionate intimacy between Dr. Pitcairn and Dr. Baillie, which afterwards, as the difference of their years became less in proportion to their whole ages, gradually changed into the warmest friendship, that continued ever after. It being now determined that he should be a physician, he went in 1769 to the University of Edinburgh, and studied medicine there for three years under the immediate direction of the illustrious Cullen. In 1772 he came to London, and attended the lectures of his uncle's learned friends, Dr. W. Hunter and Dr. G. Fordyce. About the same time also, that he might obtain an English degree in physic, though he was then nearly twenty-three years old, he entered at Bennet College, Cambridge. In 1780, several years before he received his doctor's degree, he was elected physician to St. Bartholomew's Hospital; and about the same time may be placed the commencement of his private medical practice. In 1792 he was chosen

physician to Christ's Hospital; and in the following year, his private practice being now considerable, he resigned the office of Physician to St. Bartholomew's Hospital. His office at Christ's Hospital demanded but little of his time, and was therefore retained by him several years longer.

By the death of Dr. Warren, which took place in June, 1797, Dr. Pitcairn was placed at the head of his profession in London. One or two other physicians possibly derived as much pecuniary emolument from the practice of medicine as himself; but certainly no other one was so frequently requested by his brethren to afford his aid in cases of difficulty. But this prosperous state did not endure long. In the autumn of the same year he fell from his horse, and bruised his side. Shortly after, his heart began to beat with violence, and his attention was more particularly directed to this symptom, as it had occurred in one of his brothers, likewise in consequence of a fall, whose heart, after death, was found considerably enlarged. He continued, however, to follow his profession till February in the following year, when he was attacked with a hemorrhage from his lungs. From this he recovered after some time so far as to be enabled to resume the exercise of his profession; but the same disease having recurred in summer, he embarked in September for Lisbon. During a stay of more than eighteen months in Portugal he had no return of the hemorrhage, in consequence of which he ventured to come back to this country in May, 1806. He was still feeble, but his heart was still beating too feebly, so far as time allowed, he declined altogether engaging in medical practice. Afterwards, as his own health improved, he began to receive patients at his house; then to meet other physicians in consultation at the houses of their patients; and at length, after an interval of several years, to undertake the entire care of sick persons at their own homes, except during four months in the latter part of the year, which he spent almost wholly in the country. In the meantime, however, the palpitation of his heart continued; on which account he for a long time lived very abstemiously, drinking only water, and abstaining almost entirely from animal food. But this being did not increase, and no other sign of a diseased heart existed, and as he found a vegetable diet to produce in him much flatulence, about a year or two before his death he began to eat moderately of animal food once a day, and to take sometimes after dinner a single glass of wine diluted with water. Under this change of regimen his appearance altered considerably, and during the last six months of his life he frequently received the congratulations of his friends on the improvement which his health had undergone. Disregarding the advice given by one of the masters of his art, "*Si plerumque aliquid, et sperosior, et coloratior, factus est, suspecta habere bona sua debet.*" he seemed to look upon his increased strength as a permanent acquisition, and as chiefly valuable from enabling him to bear an increase of professional labour. In the course of the month of March, for instance, he rose several times from his bed soon after midnight, and travelled between twenty and thirty miles before morning, to visit a patient. From these exertions, however, he appeared to suffer no immediate injury. But about the beginning of April he found that he was heated by his single glass of wine, though diluted largely with water, and therefore discontinued it. On the 13th he felt a soreness in his throat; but he thought so lightly of it, that he continued his professional visits during that and the two following days. In the night of the 15th his throat became worse, in consequence of which he was copiously bled at his own desire, and had a large blister applied over his throat; but the irritation occasioned by the latter remedy was so distressing to him that it was removed before its intended effect was fully produced. On the evening of the 16th Dr. Baillie called upon him, without knowing that he was ill; and having heard the history of his ailment, and an account of the remedies employed, he entirely approved of what had been done. At this time Dr. Baillie observed no symptom which indicated danger. The disease becoming more violent in the course of the night, a considerable number of leeches were applied to the throat early in the morning. Dr. Baillie visited him at 11 o'clock in the forenoon. His countenance was now sunk, his pulse feeble and unequal, his breathing laborious, and his voice almost lost, from the swollen state of the parts concerned in its formation. In this state he wrote upon a piece of paper that he conceived his windpipe to be the principal seat of the disease, and that this was the Croup. Mr. Home was also present; and it was agreed that an attempt should be made to give relief by wounding the tonsils. This was accordingly done; some blood issued, but nothing purulent. Both the patient, however, and those about him, conceived that he had derived benefit from the operation. Dr. Baillie saw him again between 4 and 5 o'clock in the afternoon, and thought his situation much improved; for the pulse was now equal and more firm, and his general appearance indicated less de-

bility and distress. Under this persuasion he left him, having previously agreed to return at 10 in the evening, when he was to meet in consultation Mr. Home and another physician who had long been intimate with his patient. A little before Dr. Baillie had paid the visit just mentioned, a slight drowsiness had come on, and this symptom rather increased after his departure. But nothing more remarkable occurred till near 8 o'clock, when the patient's breathing became suddenly more difficult. About 20 minutes after this he died.

The body was examined the second day after death by Mr. Home, Dr. Baillie, and Dr. Wells. The throat and tongue were found much inflamed and swollen. The inner membrane of the windpipe was also found inflamed, but altogether free from that preternatural coating which occurs in croup. The heart and lungs were entirely sound; but the great artery, close to its origin, was somewhat diseased; sufficiently, perhaps, to occasion in a person of an irritable frame an increased force in the pulsations of the heart, though apparently not in such a degree as to affect the duration of life. On the 25th his corpse was deposited in a vault in the church of St. Bartholomew, near Smithfield, which contained the remains of his father and uncle.

Dr. D. Pitcairn had five brothers; one of them died young; three others, all of them officers in his Majesty's service, died after they were men; the youngest, a counsellor at law, survives him. He had two sisters, all of whom have been married and are alive. His mother also still lives, and is in her seventy-ninth year. In 1781 he married Elizabeth, the only daughter of William Almaack, Esq. of London, and a niece of his preceptor, Dr. Cullen, but had no issue. She likewise survives him.

His person was tall and erect, but of late years rather thin; his countenance during youth was a model of manly beauty, and even in advanced life was remarkably handsome. While a boy, he was noted for possessing a grave and manly manner, connected with much sweetness of disposition. These qualities, added to considerable bodily strength and courage, gave him great influence over his play-fellows. But, though of a studious turn, he did not neglect his studies at school as quickly as some of his companions. His memory, however, was strong, and his judgment sound; whatever, therefore, he learned was retained, and well assorted; so that in time he excelled most of those who had once been regarded his superiors. His knowledge of history and geography, from the strength of his memory, was particularly accurate.

Few persons ever gained, without any direct effort to this end, so extensive an acquaintance with the various orders of society. His education began at the largest school in Great Britain. He afterwards studied for several years at each of the great Universities of Glasgow, Edinburgh, and Cambridge, and attended the principal lecturers upon medicine in London. While a young man in London, he lived with his uncle, who had many friends, and frequently entertained them at his house. He resided many years in Lincoln's Inn Fields; and, while there, associated daily with gentlemen of the law. He was early admitted a Fellow of the Royal and Antiquarian Societies; and hence knew many learned men, in addition to those of his own profession. He was fond of country sports and athletic games, particularly the Scottish one named golf, which carried him among other sets of men. He had a taste also for the fine arts; in consequence of which, he became acquainted with many of the professors of them; and his employment as a physician in the largest hospital in the kingdom, and in private, made known to him a very great number of persons of every rank and description in life. From such opportunities, and an original turn for the observation of character, he obtained a most extensive knowledge of human nature, and an infinite fund of stories and anecdotes, which, when at ease among his friends, he used to relate in the happiest way. None of his stories, however, related to himself; indeed, he scarcely ever spoke of himself to his most intimate friends; no doubt from a wish to avoid a fault he saw so frequently committed by others. In conversation he shunned dispute. When he dissented from others he either declared his opinion in a few words or remained altogether silent. With literary men his value as a companion was considerably increased by his judgment in selecting, and lively mode of repeating, passages from new works of taste, most of which he read immediately after they were published. But, though he had lived so much in society, he never entirely lost a natural shyness of manner, which was more observable at some times than at others. This was often imputed by those who did not know him to pride; though, in truth, it seemed to arise from a diffidence of his own merit. As he advanced in years his manners became less reserved to strangers; for, to his friends, they had always been frank and affectionate.

His feelings were warm, and he was sometimes betrayed by them into little improprieties; but this disadvantage was greatly outweighed by the energy which was hence given to his character, and the interest which he hence took in the happiness of others. It may be regarded, perhaps, as no considerable title to praise, that he behaved with the utmost kindness and generosity towards his numerous relations. But his endeavours to serve were not confined to these. He was ever ready to assist his friends in their pursuits, not only by his advice, but by his influence with others, and the sacrifice of his time; to say nothing of other aids which he frequently furnished. Like other men of warm tempers, he was apt to bestow upon his present pursuits more than their due importance; and, as increase of years and professional employment, together with great varieties in the state of his health, necessarily produced alterations in his views of life, he was hence thought by some to be of a changeable disposition. But this was never said respecting his attachment to persons. He continued to the last, loving his first friends, and was, in return, most cordially beloved by them.

His manner, as a physician, was simple, gentle, and dignified, and always sufficiently cheerful to encourage hope, without offending by its incongruity with the scene about him. From his kindness of heart, he was frequently led to give more attention to his patients than could well be demanded from a physician; and as this evidently sprang from no interested motive, he often acquired considerable influence with those whom he had attended during sickness. No physician, indeed, of his rank in London perhaps ever exercised his profession to such a degree gratuitously. His behaviour to other physicians was highly candid and liberal, and he most studiously avoided the slightest appearance of interfering in their professional concerns. Such conduct is, no doubt, recommended by its ultimate utility; but in him it arose from a native sense of honour, that appeared in every other transaction of his life.

As he attended very carefully to the symptoms of diseases, in the order and degree in which they occur in nature, he had, from this source, and the excellence of his memory, acquired great practical knowledge of his profession. He had, in consequence, also made many original observations upon the history and treatment of diseases. He was, for instance, the first who took notice of the connection between rheumatism of the external parts of the body, and a certain affection of the heart, which he hence called rheumatism of that organ. Since it was mentioned by him, numerous examples of it have been seen by others, which puts the justness of the observation beyond doubt; though no trace of it exists in any author prior to Dr. Baillie, to whom he had communicated it. He never published any of his observations himself; but several, besides that which has just been spoken of, have been given to the world by others. About two years before his death he told the author of this account that he had a great desire to write upon gout; but there is no reason to believe that he ever accomplished it.

He never long enjoyed very good health from the time of his commencing to practice physic in London. For, not to repeat what has already been said respecting his disorders, he was, during many years of the first part of his residence here, much subject to violent headaches. He twice laboured under severe agues; and suffered many attacks of inflammatory sore throat. But none of his ailments made any considerable permanent impression upon his external appearance; for, immediately before his death, no person would have supposed, from seeing him, that his health had ever been bad, or that he had attained the age of nearly sixty years.

Notes by a Country G.P.

DURING the last four months there have been allotted to me patients whose cases, to my poor rural mind, seem interesting, and at any rate stand above my usual dead level; and as so many of the readers of the JOURNAL were wont in my student days to inquire wish for news of cases such as they might meet with in general practice, I feel justified in trying to supply a few. I need scarcely say that they are only what *might* be met with; what *must* be met with are chronic rheumatism and dyspepsia in all their protean forms. Nevertheless the cases are in the "most middle country."

CASE I. Epilepsy in labour.—Mrs. M.—, *æt.* 35, 10-para, said to be always hysterical in labour, the hysterics appearing at the fifth pregnancy. On May 19th she was having first stage pains. Found with

a paroxysmal laryngeal cough, very suggestive of hysteria. During my absence had three fits judged to be hysterical. In evening a convulsive attack, marked by general rigidity, but during it conjunctive were sensitive; the attack ceased on inhalation of strong ammonia and application of chloroform on lint to nape of neck. No oedema and no albuminuria. Child alive and in the first position of vertex.

May 20th.—Several fits, which were obviously not hysterical, not preceded by definite aura or cry; patient getting so exhausted that membranes were punctured through the size of a shilling.

21st.—Fits very frequent; treated by chloroform. Epileptoid in character. Urine 1006; no albumen; no casts; three pints in twenty-four hours. Champetier's bag introduced and inflated fully.

Early in morning of 22nd, the head not having engaged after the bag had been passed, although the pelvis was quite roomy, and as the fits were continuing, I delivered her by forceps. There was considerable hemorrhage owing to the almost inert state of the uterus, which was ceasing work. During the next four days she had three fits, and I found out subsequently she was subject to epilepsy.

We are told not to deliver in the absence of pains, or except in obviously primary inertia. In this case I had eclampsia in my mind, and had tried to give her some sleep without success. She was getting worn out by fits and feeble pains; the os was sufficiently dilatable, and I felt myself capable of controlling post-partum hemorrhage. The case was not easy of diagnosis because there was a distinct hysterical element, and I found myself often wondering whether I was not giving chloroform for hysteria. She never had nor has had any albuminuria since. She lived six miles from my house.

CASE 2. Pseudocyesis.—Mrs. T.—, *æt.* 48, 5-para, December, 1897. Considered herself seven months pregnant; felt movements three months ago. Has had hemorrhage on and off for last two months. Now feels pains like labour. On examination of abdomen resonance everywhere and flatulent. P. V. Cervix fixed, indurated, irregular; through it comes a foul, blackish discharge. Diagnosis made, from subsequent examination, of new growth. Patient would not credit diagnosis of "no pregnant," and sent for a "rival."

CASE 3. Placenta prævia.—Mrs. S.—, *æt.* 35, 2-para, saw a doctor for bleeding at sixth month of pregnancy. When "called in" I found cervix particularly "boggy," and an "uncanny" feeling about region of anterior fornix; no pulsation. Os admitted finger. Told to lie up for two weeks, and to send at once if any bleeding occurred before that. She was given a mixture of ergot and Acid. Sulph. Dil. and opium. Bleeding had not been profuse. Six weeks after, she apparently having entirely dismissed the subject from her mind, and having never obeyed instructions, I found her dying, lying on the floor in a pool of blood. A leg was got down rapidly, but it was useless as there was no more blood to stop. She never showed a sign of life. She was ironing when the hemorrhage occurred. I have never heard of so rapid a termination. There was no question of the prævia. The case shows the necessity of very carefully considering before we decide not to induce labour where placenta prævia is suspected in a patient not near at hand. She lived close at hand.

CASE 4. Miss C.—, *æt.* 30, complained of diplopia and consequences of false projection of the image, severe nocturnal pains in the region of the sciatic nerves, and round the chest about the level of the sixth ribs. There is divergent strabismus of right eye, but no paralysis of movement (this seems probably due to fact that in right eye the V. = 0); the pupils are not equal, and only the left reacts to accommodation. Knee-jerks are absent, and there is well-marked optic atrophy in both eyes. Six months previously she had been treated at the Middlesex Hospital, from which I learnt that there was then no optic atrophy, and diagnosis was early tabes dorsalis. Three years ago she is said to have had influenza. I have never seen a clear case of tabes dorsalis in a woman before, and had I not been on the alert might easily have missed the diagnosis of this one, and have treated her for sciatica or some more common complaint. Curiously enough, after taking twelve doses of Liq. Arsenicalis *mv* she has had no recurrence of her nocturnal pains during the last two months. One week ago (July 3rd) she had a syncopeal attack.

CASE 5. Adenoids and medical treatment.—Master H.—, *æt.* 14, last Christmas had acute tonsillitis, followed by otorrhœa from right ear. Tonsils quieted down to what is probably their natural enlarged size. He remained deaf, and on further examination proved to have adenoids. The supuration was treated much as usual, and three months ago I advised that I should remove the adenoids. Being rather strongly asked to try other means first, for the last two months I have once or twice weakly syringed through the nostrils solution

of borax and ammonia chloride Politzerized, and made him perform "Valsalva" with the vapour Tr. Benzoïn. Co. in his mouth, putting pressure to the ear with the ruptured membrane. He has also been taking Syrup. Ferri Phosph. Co. As a result of this treatment, or rather during its process, the watch-hearing of the left ear has increased from three inches to twenty-one inches, whilst the right ear has improved from application to six inches. I do not think this improvement can be accounted for merely by the subsidence of an inflammatory condition, because there was for more than a month afterwards no obvious improvement. The adenoids are still present, but the boy's expression is less "histrionic."

CASE 6. *Ovarian cyst*.—Mrs. S.—, *et.* 70, had a characteristic ovarian cyst which, notwithstanding her general good health, she refused to have operated upon, despite my representations of her final discomfort. Six months afterwards the tumour was causing her the most urgent distress—dyspnoea, oedema of legs, vomiting, and considerable pain. She requested me to tap it, which I did with all antiseptic precautions by plunging a fair-sized operating needle (No. 12 catheter) through a one-inch incision and removing a pint of blackish-green gelatinous fluid. She died on the fourth day afterwards, merely going out like a burned candle, having no symptoms of anything special, and thanking me for her relief.

CASE 7. *Chorea and delirium tremens*.—Mrs. P.—, *et.* 55, April 13th, has all the appearances of a chronic alcoholic with bronchitis. Six weeks ago noticed weakness and tremor of the left arm; now there are characteristic fidgety movements everywhere and no paralysis, but alcoholic tremors enter into the case. There is no history nor family history of chorea nor of acute rheumatism.

May 1st.—The movements are quite characteristic of chorea. She has improved under bromide of ammonia ʒij daily, and a pill of valerianate of iron with gradually diminishing alcohol.

20th.—Bromide has reached ʒij, the alcohol has been reduced to a minimum, and she seemed much better. There is no albumuria; mental condition fair.

22nd.—Delusions of snakes, &c., and she became violent from terror.

23rd.—No movements now, but her mind seems unshinged by her fright. From 23rd to 25th she was sleepless and terrified, except under hyoscyne gr. ʒv.

On the 26th she became more and more comatose and died. The case I consider interesting from the fact that chorea developed after the age of fifty. Delirium tremens supervened some time after removal of alcohol and during the exhibition of bromide ʒij. It was her first attack. Insanity seemed the result of fright, and the absence of a family history of chorea prevents this from being clearly grouped with Huntingdon's chorea.

CASE 8. *Glycosuria*.—Rev. J. B.—, *et.* 55, April 25th, for the last four weeks has had a pain in region of left sixth rib, from the spine outwards, and loss of flesh, attributed to a fall. Complains also of balinitis and pain in both groins. He had been treated by plasters and liniments, &c., but seemed to get worse. On examination the spleen could be felt with gradually diminishing alcohol. His abdomen was pendulous. Ordered an abdominal belt and a lotion for the balinitis. Opportunity of examining urine lost on two occasions by the fracture of the bottle containing it.

May 1st.—He went to London, where some one told him he was suffering from the spleen, and abundance of sugar discovered. This cleared up the cause of balinitis, and gave an indication for treatment. The sugar disappears now at once on an antidiabetic diet, and does not return when he is taking Hovis bread, any wines, milk, and one potato daily; but reappears at once with sugar, fruit, asparagus, and pastry. Despite the absence of sugar the dull aching pain continues, and (June 2nd) has extended along the left internal saphenous nerve. These pains disappear quickly with morph. gr. ʒ i t. d. s., and reappear on its removal. Wasting continues. The case must be considered one of diabetic peripheral neuritis, and I am doubtful whether the wasting does not demand a carbohydrate diet. Morphine does not appear to affect the sugar.

CASE 9. *Tachycardia after typhoid fever*.—Mr. V.—, *et.* 29, May 2nd, says that ever since typhoid fever two years ago his heart has troubled him. He is anemic, and his apex-beat is one and a half inches external to the nipple line; after exertion one can hear a systolic bruit, and it has characters of one due to mitral disease. There is occasional intermittence of which he is conscious, but it is the continued rapid beating that worries him. Put on Ferri ʒi Amm. Clt. gr. xxx, Tr. Convallariae ʒi daily.

June 1st.—He is much better, only gets the rapid beating on exertion; anemia is going.

20th.—Considers himself cured. Apex-beat is three-quarters of an inch, or breadth of my index finger, outside left nipple line. I

used often to wonder when at St. Bart.'s whether I should ever diagnose during life Zenker's degeneration!

CASE 10. *Sciatica*.—D.—, *et.* 40, March 20th, sat on edge of a seat which was damp, with left leg crossed over right, for a long wet journey.

March 22nd.—Acute typical sciatica, which made him cry out. Never has had rheumatism, or malaria, or gout. He is a strong, healthy farm labourer. Put on Sod. Salicylatis gr. xx quartis horis, and poultices ordered all over the affected right leg.

April 1st.—Pain disappears slowly; blisters the size of a five-shilling piece applied in succession from sciatic notch to heel, and the medicine repeated.

4th.—Leg is anæsthetic and weak. Nothing abnormal has ever been felt in abdomen.

May 2nd.—Leg has continued weak, painful, and anæsthetic in patches behind. Put on quinine gr. x daily, faradism having been tried on alternate days since April 4th.

July 1st.—From the first day of taking quinine he has had no more pain, and now the leg is nearly well. I have now seen three cases which the result showed to be pure sciatica, in which there were weakness and anæsthesia. I look upon quinine almost as a specific in cases of no particular aetiology. This district was once malarial.

A Case of Pyopneumothorax following Abscess of the Lung.

ABSCESS of the lung appears to but rarely result in pyopneumothorax. Saussier's statistics as to the causation of pneumothorax give abscess of the lung as the occasion of this accident in but one out of 131 cases, whilst phthisis was responsible for eighty-one. Under the circumstances the following case appears worthy of record, especially as it presented certain difficulties of diagnosis until the occurrence of the pneumothorax.

A. A., *et.* 4, admitted to Luke Ward on March 28th, 1898, under care of Dr. Gee.

History of present condition.—Eleven months ago he had measles, from which he recovered. For the past fourteen days he has been subject to attacks of coughing, bringing up a great deal of mucus. He has not been heard to whoop.

On March 26th he vomited for the first time, seemed worse, and was very languid. He coughed much and brought up green phlegm. He would eat nothing. Bowels were open this day, but not since. Has had no diarrhoea.

On March 27th he was very restless and would not sleep nor take medicine. Did not complain of headache.

Present condition.—Thin, miserable little specimen; smells offensively; irritable, restless, and peevish to a degree—tossing about in bed, refusing to remain covered by the clothes. Will take neither food nor medicine; is nasal fed with much resistance, and usually vomits the food shortly after. Coughs frequently, but the paroxysms are feeble and there is no whoop. A quantity of greenish sputa is brought up now and again. Appears to suffer from no headache. There is no squint. *Tache cérébrale* certainly not marked. Temperature remains subnormal. Pupils equal and react to light. No success as yet in attempts to see optic discs. No orthoëa. Tongue turred. Chest: rales and rhonchi over both lungs. Heart, as far as can be made out, natural. Pulse almost impossible to feel on account of peevishness—rate about 140. Abdomen is retracted. Has passed no urine during the eighteen hours in hospital. Both knee-jerks obtunded.

March 31st.—Improved; still vomits a good deal. Very drowsy at times, at others very restless and peevish. Distinct whoop noticed to-day. Bowels open but no diarrhoea. Attempts to see optic discs still unsuccessful.

April 1st.—Temperature rose last night, and to-day is fluctuating between 100° and 101°.

April 5th.—Optic discs appear swollen and vessels engorged, the edge of the discs a little "frayed." The last day or two the child has been worse. Temperature is rising, and the respirations are more rapid. Mouth remains in a very dirty state despite treatment. Has not vomited for a day and a half. Signs in lungs as before.

April 7th.—Temperature is still high (102.4°—104.6°). Widal's reaction yielded a negative result. Moist sounds in lungs have increased, and at the right base, internal to the scapula, impairment, bronchial breathing, and bronchophony have appeared.

April 8th.—Signs in chest as above.

April 9th.—Signs in chest quite indefinite again.

April 10th.—Called at 6.45 a.m. and found the child cyanosed, breathing very rapidly—72,—with the following signs: Right chest immobile, distended, resonant. Breath and voice-sounds amphoric, and a clear bell sound is heard. Left chest: Heart impulse, fluttering, half an inch outside the nipple line. There is inspiratory recession of the intercostal spaces on this side. This condition has apparently not produced any sudden symptoms; the child had gradually got worse during the night.

12 noon.—Child cyanosed and collapsed. Breath has heavy, sweet, earthy odour. Percussion note over right chest highly tympanic.

2.30 p.m.—Patient in a condition of urgent dyspnoea. Paracentesis of the chest was performed without avail, and the child died at 2.35.

Post-mortem examination.—April 11th.—Poorly-nourished child. No evidence of any meningitis. No abscess in temporo-sphenoidal lobe or cerebellum. Both tympanic membranes perforated, a little pus in the right tympanum. Hard wax in external ear; no discoloration over temporal bone, no pus in mastoid cells.

Lungs: Weight of each 50 oz.; collapsed; pus in right pleural cavity. Surface of lung covered with greenish purulent liquid and a layer of lymph. The pus was offensive. In the lower lobe of each lung was an abscess cavity of considerable size. That in the right lung communicated by a ragged opening with the pleura, which was full of air. No signs of tubercular consolidation.

Nothing abnormal was discovered elsewhere in the body.

Remarks.—On admission the child's general condition pointed to tubercular meningitis, but after a day or two the severity of the pyrexia was strongly against this conclusion. The primary trouble was almost certainly the otitis media. Though the peculiarly offensive odour of the child pointed strongly to this condition, the diagnosis could never be made because his extreme fractiousness prevented a proper examination. There was never any orthoëa while under observation. It is interesting to note that, beyond the transient evidence of consolidation in the base of the right lung, the signs in the chest were quite indefinite till the pneumothorax occurred.

Notes.

THE Winter Session begins on Monday, October 3rd, and on October 4th the Annual Dinner of Old Students will take place in the Great Hall. Sir William Turner will occupy the chair. Mr. Bruce Clarke is the Secretary for the Dinner, and to him all communications on the subject should be addressed.

THE examination for the Open Entrance Scholarships in Science, the Preliminary Scientific Exhibition, and the Jeaffreson Exhibition will begin on Tuesday, September 27th.

WE may again remind our readers that the Introductory Address of the Abernethian Society will be given on Thursday, October 6th, by Sir Thomas Smith, Consulting Surgeon to the Hospital. All past and present members and their friends are invited to attend.

MR. J. G. FORBES has been appointed Assistant Demonstrator in Pathology.

MR. P. J. CAMMIDGE has been elected Treasurer's Research Student in Pathology.

DR. NIELD COOK, Medical Officer of Health for Calcutta, was entertained at dinner on Tuesday, August 9th, by the medical officers specially deputed for plague duty. References were made in most cordial terms to Dr. Cook's energy and ability in dealing with the dreaded epidemic. Surgeon-Colonel Hendley, Inspector-General of Civil Hospitals, himself a Bart.'s man, made an important speech on the necessary preventive measures. The *Englishman* for Thursday, August 11th, commenting on the speeches in a leading article, points out that "they once and for all sweep away the insinuations that have been made regarding friction in the Health Office. There were present all the medical officers who are in any way connected with the stamping out of the disease in Calcutta, and their testimony as to the unceasing vigilance and untiring energy of the Health Officer should not be allowed to pass unrecorded."

WE have received from Dr. Black Jones, Resident Physician to the Llangammarch Wells Spa, in Breconshire, two interesting pamphlets calling attention to the advantages of Llangammarch Wells as a health resort. The special value of the waters at this spa is that they contain barium chloride to the extent of over six grains per gallon. As this is a drug which has recently attracted favorable notice in cardiac therapeutics, and as the Wells are both easy of access and pleasantly situated, it is to be expected that the spa will become increasingly popular. It would be an enormous boon to many patients, and we may add to many practitioners, to have such health resorts developed in this country. The fatigue of long journeys and much heavy expense would thus be obviated.

Amalgamated Clubs.

CRICKET CLUB.

Cup Tie—Semi-Final.

ST. BART'S v. ST. THOMAS'S.

In this match two drawn games were played before Bart.'s were able to claim the victory. On the first two occasions Bart.'s were unfortunate in losing the toss, and consequently had to play for a draw each time with no prospect of winning. In the first match the advantage was, owing to the good batting of Greaves (not out 103) and Braner (65), with us; while on the second occasion an invaluable stand by Scoones and Orton, which lasted over an hour, alone saved us from defeat. Luck, however, was on our side in the third match, as winning the toss and battering on a good wicket, Bart.'s put together a total of 289, the feature of the innings being a fine 121 by Sale. Against this total St. Thomas's were only able to reply with 160. Sale with 3 for 27; and Pank 3 for 67 being the most successful bowlers.

St. Bart's v. St. Thomas's. 1st Match.

Table with columns for ST. THOMAS'S, ST. BART'S, and Extras, listing players and their scores.

St. Bart's v. St. Thomas's. 2nd Match.

Table with columns for ST. THOMAS'S, ST. BART'S, and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

St. Bart's v. St. Thomas's. 3rd Match.

Table with columns for ST. BART'S, ST. THOMAS'S, and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

St. Bart's v. R.I.E.C.

The return match with this club was played at Cooper's Hill, the result being an easy win for Bart's, who ran up 219 for the loss of one wicket.

SCORES.

Table with columns for ST. BART'S, R.I.E.C., and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

St. Bart's v. Surbiton.

This match, the last of the season, was played at Surbiton, the result being a fairly even draw. Bart's went in first, and soon five wickets were down for 75.

SCORES.

Table with columns for ST. BART'S, SURBITON, and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

St. Bart's v. University.

Final Cup Tie.

This match was played at Chiswick, the result being an easy win for Bart's by seven wickets. University, having won the toss, started batting, but with two exceptions—Pretty and Stanley—could do little against the fine bowling of Rose and Willett, and were dismissed for the small total of 157.

It is much to be regretted that in spite of the fact that notices have been posted concerning Cup matches and full particulars as to date and ground given, the attendance on all four occasions has been very small.

SCORES.

Table with columns for 1st Innings, 2nd Innings, and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

St. Bart's.

Table with columns for 1st Innings, 2nd Innings, and Extras, listing players and their scores.

BOWLING ANALYSIS.

Table with columns: Overs, Maidens, Runs, Wickets, listing bowlers and their performance.

On Tuesday, July 26th, Bart's concluded what must be considered a successful season. The list of fixtures was a strong one, including as it did Kisher, Hornsey, and Hampstead. In addition to these, Thomas's, and University were also met in the various rounds of the Inter-Hospital Cup.

BATTING AVERAGES.

Table with columns: No. of Innings, Not out, Total, Highest score, Average, listing players and their batting statistics.

BOWLING AVERAGES.

Table with columns: Overs, Maidens, Runs, Wickets, Average, listing bowlers and their bowling statistics.

Reviews.

EPIDEMIC DIPHTHERIA: a Research into the Origin and Spread of the Disease from an International Standpoint. By ARTHUR NEWSHOLME, M.D., Medical Officer of Health of Brighton, &c.

Dr. Newsholme is well known not only as the very able Medical Officer of Health of Brighton, but as an accomplished statistician. Any one who wishes to learn what valuable conclusions may be drawn even from imperfect statistics, when these are rightly and intelligently used, cannot do better than take this little volume as his model.

between different countries is easy. We are apt to think that we have a good deal of diphtheria in England, but our figures fade into insignificance beside those from the continent of Europe, and especially from those of North America. Comparing England with Massachusetts, our highest epidemic death-rate is not much more than half their lowest. Diphtheria appears, in fact, to be a continental rather than an insular disease. Tracing the progress of great epidemics, the figures show clearly that it spreads gradually from town to town, and in London from district to district, the obvious inference being that its spread is mainly due to direct infection from case to case. Nevertheless Dr. Newsholme brings forward a very striking and novel fact in regard to the epidemic prevalence of the disease. Epidemics appear to arise in connection with abnormally low rainfall, especially when several dry years succeed each other. This is in apparent contradiction to the well-known relation between the disease and a damp subsoil, but the contradiction is apparent rather than real, as the author shows in his concluding chapters. No more carefully compiled statistics or clearly reasoned conclusions in connection with diphtheria from the broadest point of view can be found than in this little book; and its careful study, rather than its hasty perusal, can be strongly recommended to every student of epidemiology.

THE DIAGNOSIS OF DISEASE, by J. PORTER PARKINSON, M.D., M.R.C.P.(Lond.). London: Baillière, Tindall, and Cox, price 4s.

Of many books the chief praise lies in the statement that they "supply a need." That the need is well supplied is often a secondary consideration; a badly written book will be tolerated if it fills a want. In the book before us these conditions are somewhat reversed; we have few specific objections against the contents, but we fail to see the need of such a publication. The author tells us that "if the book prove of use to students preparing for examination, and to junior practitioners of medicine," his object is accomplished. The association of these two sets of readers inclines us to say that the student who "prepares for examination" by trusting to a condensation of the diagnosis of disease to 170 pages of crown octavo is likely not only to become a junior practitioner, but to remain one. In fact, these two types of readers of medical literature are just those who will gain little good from the book, but stand the chance of gaining much harm. Thus, to take one instance, Chapter IX, on "Diseases of the Joints and Bones," begins with an account of acute rheumatism (in fourteen lines), then treats of gout (in twenty lines), and includes a paragraph on rickets. Such faulty classification as this is inevitable in a book of such brevity, but the resulting conception of either of these diseases in the mind of the student who uses the book must be strangely inadequate, to say the least. To appreciate the book at all—that is, as a short summary of the salient features of diseases—presupposes a thorough and practical acquaintance with clinical cases. But such a mental storehouse of facts as that acquaintance implies has little need of a printed catalogue, which is what the book really amounts to. We regret we cannot recommend it, for it shows many signs of careful preparation.

AIDS TO EXAMINATIONS IN SURGERY AND MEDICINE, by T. REULL ATKINSON, M.D. (London: Baillière, Tindall, and Cox. Price 2s. 6d.) Of this book we can only say that it possesses all the drawbacks of the last-mentioned work, without any compensating advantages that we have been able to discover.

ATLAS OF CLINICAL DIAGNOSIS AND INTERNAL DISEASES, by Dr. C. JAKOB. (London: The Reban Publishing Co., Ltd.)

The editor of this translation in the prefatory note justly observes that "there is no deficiency of books on clinical medicine;" he thinks, however, that the high standard of the illustrations is a sufficient justification for adding this book to the number already published. In this we wholly disagree with him; it is a bad principle to attempt to teach any scientific subject by means of illustrations. The book is divided into two parts, that devoted to the illustrations and the accompanying remarks, and that occupied by an epitome of diseases. The illustrations may be divided into three sections; the first part deals with clinical microscopy, and includes plates of the various urinary crystals and other deposits of blood-fibres in several diseases, and of certain colour reactions. The illustrations in themselves are excellent, but are in our opinion quite useless for teaching purposes, compared with the actual demonstrations which should be familiar to every clinical clerk. The second part comprises the normal topography of the viscera, and is an admirable feature of the book; it is a subject very much neglected by clinical teachers, and these plates might well be added to every text-book on medicine. The third part consists of diagrammatic representations of disease, and is no doubt useful as a means of recording

cases; for purposes of teaching, to the observant it is useless, to the careless misleading. Of the text, all we can say is that the translation appears good; the descriptions and therapeutic directions are so condensed as to be in many instances quite obscure. On the whole the book is not worthy of comparison with others of the same class.

Appointments.

MOLESWORTH, T. H., B.A., M.B., B.C.(Cantab.), M.R.C.S., L.R.C.P., has been appointed Senior House Surgeon to the Stockport Infirmary.

SHEARS, CHARLES H. B., M.R.C.S., L.R.C.P., Surgeon to the Liverpool Eye and Ear Infirmary, has been appointed by the Home Secretary Ophthalmic Referee for County Court Circuit 6 under the Workmen's Compensation Act.

Examinations.

UNIVERSITY OF OXFORD.—M. H. Gordon has taken the degrees of M.B. and B.Ch.

UNIVERSITY OF DURHAM.—First Examination for Degree of M.B. Elementary Anatomy and Biology.—P. M. Rivaz. Elementary Anatomy.—C. Fisher.

SOCIETY OF APOTHECARIES.—Medicine and Forensic Medicine.—N. Walmisley. Midwifery. D. Fletcher, J. E. Griffith.

Pathological Department of the Journal.

SPECIMENS sent by subscribers only to the JOURNAL will be examined in the Pathological Laboratory, and a report furnished under the supervision of Dr. Andrews, at the following rate:

Ordinary examination, Bacteriological or Patho-	s. d.
logical, such as tumour, membrane, or sputum	2 6
Ordinary (qualitative) urine examination	2 6

Any further report will be charged at a special rate. If a mounted specimen be desired an extra charge of 1s. will be made. If a telegraphic report be required the cost of the telegram will be charged in addition.

Specimens must be accompanied by the fee and a stamped addressed envelope, in which the report will be sent as soon as possible. Specimens, with, if possible, a short history of the case, must be addressed to "The Manager of the JOURNAL," with "Pathological Department" written in some conspicuous place on the wrapper.

On application to J. Russell, Museum Assistant, a set of bottles containing hardening fluids, and ready for sending away by post, can be obtained on remitting a postal order for 2s. 6d.

Marriages.

BURNETT-KILBURN.—On July 19th, at Christ Church, Totland Bay, I.W., by the Rev. E. E. Kilburn, M.A., brother of the bride, assisted by the Rev. A. M. Maynard, B.A., vicar of the parish, Frank Marsden Burnett, M.D.Lond., M.R.C.S., L.R.C.P., of Sevenoaks, third son of G. H. Burnett, Esq., of Hampstead, to Lila Campbell Kilburn, youngest daughter of the late Henry Ward Kilburn, Esq., of Cannon Place, Hampstead.

CRAWFORD-WILLIAMSON.—On August 31st, at the Parish Church, Harrow-on-the-Hill, by the Rev. H. Sinclair Brooke, vicar of Pembury, Kent, assisted by the Rev. F. W. Joyce, vicar of Harrow, Cyril Rodney Holtz Crawford, M.R.C.S., of Pembury, Kent, youngest son of the late Ninian Crawford and of Mrs. Crawford, of St. Leonards-on-Sea, to Lucy Phyllis Williamson, second daughter of George Williamson, of Lincoln's Inn and Harrow, barrister-at-law.

ACKNOWLEDGMENTS.—Nursing Record, Guy's Hospital Gazette.

